

The Evolutionary Function of Consciousness and Fregean Representationalism

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There is an intuition of contingency which causes philosophers of mind to often mischaracterize the nature of phenomenal consciousness. The aim of this paper is to define phenomenal consciousness not as a separate, distinct, and contingent entity, but as a process which is necessary in aiding our non-phenomenal cognitive functions. A constitutive relationship between phenomenal and non-phenomenal functioning explains how: phenomenality can afford evolutionary benefits to its possessors; how it can overcome some very persuasive thought experiments against physicalism and functionalism; and how its Fregean representational structure can indeed aid non-phenomenal cognitive processing. Ultimately, what is defended and preserved is an eliminative, physicalist, functionalist account of phenomenal consciousness.

Keywords: consciousness, function, representationalism, qualia

I claim that consciousness is not a thing, but a process (cf. James, 1890/1983). Traditional problems in the philosophy of mind arise from a focus on consciousness as separate and distinct from functional information-processing in the mind. But there is empirical support for hypotheses about a function of consciousness as an important part in non-phenomenal functioning. The causal role that consciousness plays can affect behaviour, and is thus evolutionarily beneficial to an organism that possesses it. The global workspace theory and blindsight cases show how the function of consciousness may be related to the generating of spontaneous and flexible behaviour, and are therefore related to rationality and decision-making. In this way, phenomenal consciousness can be viewed not as a special property of these processes, but as nothing more than the role it plays within them, with the holistic function to ensure survival in the creature; a sort of mechanism or strategy

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that is *useful* to fulfil the functions of these non-phenomenal mental states. Qualia are just the phenomenal features of phenomenal consciousness, and their Fregean representational content enables the successful operation of non-phenomenal functions. Viewing consciousness as evolutionarily beneficial in cognitive functioning means that we can overcome epiphenomenalism; consciousness must be useful to the functioning of minds if it aids the survival of the creature who possesses it. Our intuitions about the contingency of consciousness (and therefore our inclinations to accept dualism) are illusory and misattributed.

Consciousness as an Entity, Zombies, and an Intuition of Contingency

Figure 1 represents the functionalist view of the mind. We receive input from the external world which is perceived by our senses, and we move in and out of certain mental states as outputs of our processing systems. The “Black Box,” as B in the diagram, shows what Chalmers (1996) called the Easy Problem of consciousness — he defines it as those functions in us that can be successfully explained by standard methods of cognitive science. It is supposed that the Easy Problem can be solved with empirical exploration from the physical sciences and is thus settled with physicalist theories. For the functionalist, the Black Box in this diagram is the non-phenomenal functioning of the brain.

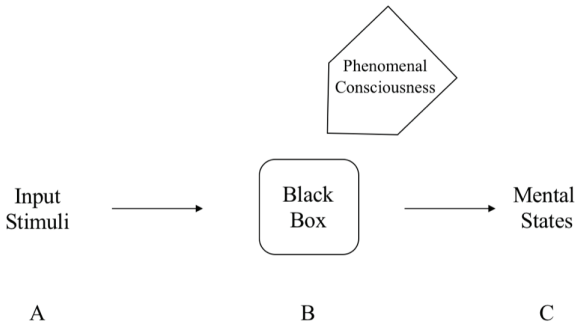


Figure 1: A traditional, functional view of the mind: stimuli are inputted from the external world via sensory perception in A. They are then (non-phenomenally) processed by B. Finally, they are outputted as mental states (which can themselves cause behaviour). Phenomenal consciousness is depicted as a separate entity which cannot be explained by any component of this system.

The Hard Problem of consciousness, however, is the question of phenomenal consciousness — the “what it’s like” of mental states. Why do phenomenal mental states feel the way they do? Why do some mental states need a phenomenal aspect at all? It is these problems that are left unexplained by standard methods of cognitive science, for it seems that the physical cannot explain the phenomenal in a

way that will answer the Hard Problem of consciousness. In Figure 1 the Hard Problem reduces to a question about where in this diagram we should place phenomenal consciousness. Traditionally, consciousness is a kind of *entity* that must be accounted for in some way in this physicalist system. The epiphenomenalist, for example, would posit that although phenomenal consciousness arises *from* the physical, it has no power to *affect* the physical. In the figure, it would hover somewhere between B and C as a by-product. Representationalist theories attempt to identify phenomenal consciousness by direct reference to A (namely, they identify representational structures which relate directly to the external world via sensory perception), while behaviourists would reduce our phenomenal states to something observable about our behaviour resulting from C.

The traditional problems of consciousness amount to the following: consciousness is seen as an entity in its own right; it is a vast capacity in us which can't be explained by any component of the system illustrated in Figure 1. For this reason, we intuitively think of consciousness as a contingent feature of the system — it seems quite plausible that while it is true that we do possess phenomenal consciousness, it could have been the case that we evolved with states that don't feel a certain way at all, or with processes which do not require phenomenal feel to fulfil any function. My point here is that we cannot identify any kind of relation in B to explain phenomenal consciousness because there is no relation, as such — our picture of the mind must consider phenomenal consciousness as a *necessary consequence* and *constitutive part* of our non-phenomenal processing, rather than as a distinct entity which enables us to experience in specific ways. The intuition of contingency is what causes the Hard Problem, and so, defeating this intuition is key to defending physicalism and functionalism.

Thus, the Hard Problem of consciousness can be summarised as the problem of finding where phenomenality can be placed in Figure 1. I aim to solve this problem with Figure 2.

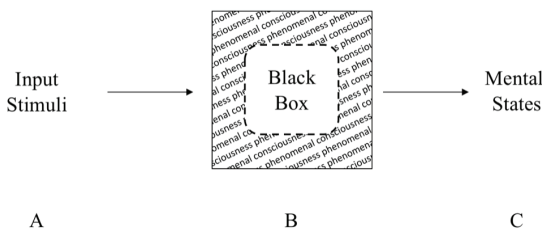


Figure 2: Here, phenomenal consciousness is depicted as an integral part of B, where the dotted line denotes the constitutive relation between the phenomenal and non-phenomenal processing occurring in B.

Phenomenal consciousness, in my view, is situated in B. Rather than a separate entity, it is a process that "greases the wheels" (Block, 1995, p. 262) of the functioning of B. Additionally, I posit that phenomenal consciousness is causally necessary in B for its successful functioning. We should think of phenomenal consciousness as a mechanism or a "shortcut" that helps along our non-phenomenal processing. Non-phenomenal functioning seems to be physical, biological, psychological, and almost automatic or non-rational. This is why phenomenal consciousness causes such a problem for physicalism; it is difficult to imagine a successful reductive explanation in terms of non-phenomenal functioning. The Hard Problem of consciousness is solved if you see consciousness not as some additional thing that does some arbitrary job of work alongside other processing, but as a physical, biological process that supports these non-phenomenal processes, sharing their very same functions. At this point, it's important to distinguish my view from any kind of property dualism (that the mind consists of both physical and mental properties). On my view, non-phenomenal processes sometimes have qualia — however, qualia are not *mental properties* of these processes, but are themselves features of processes, which aid non-phenomenal processes by virtue of phenomenality. The phenomenality of phenomenal processing is what ensures that a process fulfils its function. Thus, qualia are physical (and not mental) in just the same way that non-phenomenal processes are defined and investigated as physical (rather than mental).

The most systematic argument against physicalism and functionalism is the Zombie Argument (Chalmers, 1996), which clearly shows our intuitions about the contingency of phenomenal consciousness. We are to imagine a creature physically, functionally, and behaviourally identical to ourselves, except that this creature lacks phenomenal consciousness. There is nothing *it is like* to be a zombie. The intuition is that if zombies are physically like us in every way, but can lack phenomenal consciousness, then the consciousness that they lack cannot be physical. Equally, if zombies are functionally like us in every way, but lack phenomenal consciousness, then consciousness cannot be accounted for in functionalist terms. However, for the zombies to be able to lack phenomenal consciousness, it is taken for granted that phenomenality can be isolated from all other cognitive functions. Thinking of consciousness as greasing the wheels of non-phenomenal functioning means that, a priori, a zombie would not be behaviourally indistinguishable from a human. Indeed, I am highly persuaded by Dennett's (1993) idea of a "zimbo." Zimboes are creatures physically identical to us. These creatures, too, lack phenomenal consciousness, but they are zombies with higher-order mental states about their lower-order mental states, who use their processing systems to precisely replicate the phenomenally driven behaviour of humans. Dennett's radical claim is that it is precisely these replicated physical functions of our behaviour that make us conscious; for a zimbo to replicate them is for a zimbo to replicate consciousness itself. This reductive physicalism ends up claiming, it seems, that: "[zombies] are not just possible, they're actual. We're

all zombies. Nobody is conscious — not in the systematically mysterious way that supports such doctrines as epiphenomenalism” (p. 406). Thus, despite our initial motivation to accept the conceivability of zombies, Dennett has motivated a counter argument — what we are really imagining, if we adhere to Chalmers’ conditions, are just those human functions that we associate with phenomenal consciousness itself. Thus, despite how hard we try, zombies are inconceivable. Phenomenal consciousness, then, is a process — not an entity that a zombie can lack, but a set of constitutive processes in our normal functioning that, if precisely replicated by a zimbo, means that phenomenal consciousness is realized in such a creature.

There are many other thought experiments resting on the same intuition of the contingency of phenomenal consciousness; according to Block (1978), we are to suppose that a system functionally identical to a brain, made up of the population of China, can lack phenomenal consciousness, whilst according to Shoemaker (1982) we are to suppose that functionally identical twins can have inverted colour experiences with respect to each other and even entire worlds.¹ These attempts to motive the intuition of the contingency of phenomenal consciousness in us also fail, as any proper conception of what it means to fully replicate a functional process would recognize that such success would depend on the a priori replication of phenomenality also.

By viewing consciousness in this way, we are closer to an eliminativist view of the Hard Problem; there is no Hard Problem of consciousness because consciousness does not exist in the way traditionally expounded.² Consciousness is not something left unexplained by physical or functional explanations, because successful physical and functional explanations of the Easy Problems of consciousness, a priori, also explain the Hard ones.

Defining Qualia, Necessity, and Function

As of yet, I have not said much about “qualia” — and this is deliberate, because defining qualia is (almost) one and the same job as defining consciousness. Traditionally, qualia have been defined as the what it’s like of our daily experiences, the “raw feels” that accompany our many mental states — the painfulness of pain, the tingling of an itch, the bitter taste of lemon. They are the ineffable, private, directly apprehensible features of our mental lives (Dennett, 2002, p. 229). For the anti-physicalist, a quale is the “something” that exists over and above the physical that gives us experiences. But on my view, qualia are the experiences that constitute

¹ The arguments resting on an intuition of contingency are fundamentally different than that of Nagel’s (1974), which focuses on the subjectivity and privacy of our mental lives. My focus is not this; let’s grant that we cannot know what it’s like to experience as others do.

² See Rey (1983); Dennett (2002); Patricia Churchland (1985).

consciousness; the phenomenality of phenomenal consciousness. Since we are defining consciousness as “nothing more than the role it plays within non-phenomenal functioning,” qualia are just “the phenomenal features of the thing that plays this role.” Thus, in the same way that we are eliminativist about consciousness, we must also be eliminativist about qualia. Again, I am very much sympathetic to Dennett’s view that there are no such things as qualia in the traditional sense outlined above; “So when we look one last time at our original characterization of qualia, as ineffable, intrinsic, private, directly apprehensible properties of experience, we find that there is nothing to fill the bill . . . contrary to what seems obvious at first blush, there simply are no qualia at all” (2002, p. 231). Qualia don’t exist because there is nothing over and above the physical that accounts for the phenomenality of phenomenal consciousness. Qualia are just the phenomenal features of our non-phenomenal processing, and this is how I will treat the term.

It is also useful at this point to clarify my use of the term “necessity.” Metaphysical necessity entails truth in all possible worlds. Causal necessity entails truth according to the laws of nature. My claim is that while phenomenal consciousness is metaphysically contingent (the world could have been otherwise; we could all have turned out as zombies), qualia are *causally necessary* in mental states (given the structure and processing of mental states in the physical brain, and the actual laws of nature). Consider this: “If T is necessary for x then one does not need to appeal to evolutionary theory to explain the presence of x in T . Evolutionary explanations account for contingent features of organisms” (Flanagan and Polger, 1999, p. 5). According to Flanagan and Polger, if T is necessary for x then we don’t need any theory, evolutionary or otherwise, to explain x . All we need to do is explain x in terms of T , or vice versa (as we can explain water in terms of H_2O , and vice versa). Conversely in the case of phenomenal consciousness, we must appeal to some other theory to explain its presence and causal effects. My point is this: while water and H_2O are metaphysically identical, phenomenal properties (qualia) are constitutively related to their corresponding brain states. We can grant that consciousness is causally contingent in the same way that we can grant that any other physical feature of our human make-up is contingent. The zombie problem (and others) arise because we are imagining a creature *just like ourselves*, but lacking phenomenal consciousness. In some other possible world we could lack phenomenal consciousness, but to be the creatures we *actually are*, the existence of phenomenal consciousness is necessary.

This, then, is closely related to the idea of a “function” of consciousness. The function of consciousness is a teleological consideration, and Flanagan and Polger (1999) describe it as the “Harder Problem of Consciousness.” How did consciousness evolve? What biological purpose or function does it serve?³

³To be distinguished from Ned Block’s argument in his 2002 paper.

Of course, asking about the function of consciousness means that we must consider the possibility that it has none. Epiphenomenalism posits that although phenomenal features of processing systems (qualia) may be present and causally related to non-phenomenal functioning, this relation is a one-way relation — qualia are caused by physical features of a system, but cannot themselves cause physical changes in that system. If this were the case, phenomenal consciousness would not have a function within the mind — how could it *do* anything if it had no power to bring about any effects in any other component of the system? Attributing a function to phenomenal consciousness thus defeats epiphenomenalism. This is what I hope to do now.

Polger (2007) explains that not every property of an organism is an evolutionary trait that has evolved and adapted for a specific purpose: “Some traits could be formed or sustained by chance — mutation or drift — or by self-organization” (p. 184). Rosenthal (2008) adds that phenomenally conscious states and processes may arise because they are by-products of the processes already endowed by natural selection. It is here, then, that I’d like to posit one argument for the causal efficacy of consciousness. It is important work, because without it, the intuitions of contingency remain; if consciousness has no function, it is difficult to see why we should consider it a necessary process in mental functioning, rather than an epiphenomenon. An argument for the causal efficacy of qualia is presented by Polger (2007, p. 191): “Consciousness must have causal effects because it is necessary for some capacity that conscious creatures actually have. If some creature C can do \emptyset and if only consciousness enables one to \emptyset , then it seems clear that consciousness is causally responsible for the \emptyset -ing of C.” What is being argued is that, if we can prove that there is a capacity that is enabled only through possession of phenomenal consciousness, then phenomenal consciousness is causally responsible for it. If consciousness is causally responsible for something, then it is assumed that what consciousness *does* is ensure that that capacity is endowed in creatures who possess consciousness. It is in this way that I mean to use the term “function” throughout; not a designed, selected, or even randomly endowed attribute, but a thing’s function is what that thing is causally responsible for doing.⁴

We can conclude that consciousness does have a function, and this is clear because we can see its causal responsibility for capacities in ourselves; discovering the function of consciousness is just a matter of observing what consciousness *does* in mental processing. My argument is that consciousness is causally responsible for greasing the wheels of non-phenomenal functioning; therefore, this is its function. Giving phenomenal consciousness a function means that the epiphenomenalist cannot win.

⁴ I am causally responsible for breaking the vase, but it was never my “function” to do so. I was not designed to break the vase, I was not selected for my excellent clumsiness, and it was not a random act of rebellion. All that is true is that what I did was break the vase, meaning that I am causally responsible for the breaking of the vase.

Furthermore, the function of phenomenal consciousness is evolutionarily beneficial to those who possess it. Earl (2014) has expressed the view that, given its properties, consciousness can only have biological value as inputs to mechanisms that determine behaviour. He writes: “In general, an evolved property of an organism can be adaptive as a result of changes to ... both its body and its behavior ... that enhance the organism's ability to survive, reproduce, and perpetuate its genetic material through subsequent generations ... [phenomenal] consciousness can only have adaptive value and a biological function by virtue of its being able to influence behavior” (p. 700). If phenomenal consciousness is nothing more than the capacities for which it is causally responsible, then it seems that the behaviour resulting from these capacities is a direct result of consciousness. Thus, consciousness does have adaptive value by virtue of its being able to influence behaviour. I want to make it explicit that, on this view, consciousness is not selected by natural selection as an *entity*; it is the beneficial non-phenomenal functions that consciousness *facilitates* that are selected. However, if phenomenality is necessary in these selected non-phenomenal processes, then phenomenality itself would, by association, be selected along with them. Phenomenal consciousness, then, has evolved to benefit the creature by altering its behaviour for a greater chance of survival by playing a supporting role to non-phenomenal functioning.⁵

Hypotheses About the Function of Consciousness

Hypotheses about the function of consciousness show clearly that consciousness should be viewed not as an entity, but as a process that is causally necessary to the functioning of non-phenomenal processing. This, additionally, is evolutionarily beneficial to those who possess it. Now we turn to the important matter of considering what specific function phenomenal consciousness fulfills in the mind.

The Global Workspace theory (Baars [1988], more recently supported by Dehaene and Naccache [2001]) posits that consciousness enables the distribution of signals among the various non-phenomenal functional processors found in the brain (these would otherwise be highly independent and encapsulated modules). Mental content becomes conscious when it becomes a part (gains access to) the “global workspace”: the set of conscious information with the power to broadcast among encapsulated modules. This conscious mental content can then integrate information from many functional processes, and

⁵ Earl (2014, p. 708) has summarised further evidence that consciousness has biological value: consciousness is very complex; various ancillary systems have evolved in association with consciousness; one's experiences are representational; self-related information is treated differently from all non-self information; consciousness appears to directly influence behaviour; qualia appear to have evolved for their ability to convey important information.

consequently produce varied behaviours. It is this that is significant; information integrated in this way provides the benefit of behavioural flexibility. In familiar contexts, unconscious processors can produce automatic behaviours in systematic ways. The benefit of a global workspace is that its conscious members are broadcast much further afield, and are combined by various processors to produce novel behaviours in response to novel contexts (Baars, 1988). To emphasise, it is the fact that these processes are *phenomenally* conscious that affords the flexibility in behavioural output.

In fact, others have supported the hypothesis that consciousness enables flexibility in behaviour. Earl (2014) has hypothesised that consciousness is associated with a Flexible Response Mechanism (FRM) decision making, planning, and behaving in non-automatic ways. The behaviour of organisms is determined by automatic response systems in the mind: we behave automatically according to conditioned, fixed, and learned response mechanisms. But novel situations pose a problem here, because there may be no automatic behaviour to best fit the situation at hand. This is a biological disadvantage, because a wrong behaviour might pose a threat to the creature. Thus, as Earl explains: “a flexible response mechanism (FRM) has evolved to generate responses to novel situations, and [phenomenal] consciousness is a component of this mechanism” (2014, p. 715). Again, phenomenal consciousness is evolutionarily beneficial as it affords this flexibility in behaviour.

Additionally, as above, Earl’s characterisation of qualia as just “information of various sorts” (p. 697) supports the direct relationship between phenomenal consciousness and the FRM; a lack of information (qualia) is associated with a lack of phenomenal experience, and this is “why blindsight patients do not spontaneously initiate responses to events in their blind field; why counter-habitual actions are only possible when the intended action is in mind; and the reason for inattentive blindness” (2014, p. 697). Phenomenal consciousness here is the process of using information to inform the FRM about which behaviours are most suitable in novel situations. Without it, non-phenomenal functioning is hindered, because flexibility in behaving is restricted. Thus, consciousness is beneficial to the organism who possesses it.

Finally, Ramachandran and Hirstein (1997) posit that consciousness affords behavioural flexibility by “coherencing” the mind. They write: “phenomenal psychological defences evolved mainly to stabilize behaviour and should be seen as part of a general strategy for the coherencing of consciousness: to facilitate rapid, effective action” (p. 448). The psychological defences mentioned are phenomenally conscious processes that rationalise behaviours and treat information context-sensitively. It is in this way that consciousness functions to “stabilise” behaviour and ensure coherence in non-phenomenal functioning. Here, qualia are deeply involved in the non-phenomenal functioning — this means that their job is to affect mental states (which cause behaviours) in such a way as to stabilise them. The affective feature of qualia defeats epiphenomenalism, while the

stabilisation feature is what makes the function of phenomenal consciousness evolutionarily beneficial.

An alternative case of interest, as cited by Earl above, is the blindsight phenomenon (see also Weiskrantz, 1986). This directly evidences the need for phenomenality in the generation of intentional behaviour. Blindsight patients, despite claiming to be blind in some areas of their visual field, demonstrate excellent performance on tasks in identifying the presence, position, orientation, and movement of objects (Weiskrantz, 1986). This performance, however, as noted by Dennett (1992) and Weiskrantz (1997), can only be elicited by forced prompts from experimenters. There is no *spontaneous* initiation of behaviour guided towards stimuli in the impaired visual field, and there is no recognition of objects according to everyday concepts. Tye uses the following example: “a thirsty blindsight subject will fail to recognize a glass of water placed before him, and hence will fail to reach out for it” (1996, p. 289). Blindsight subjects, then, lack a phenomenal experience that represents objects in their impaired visual field. They also lack the disposition to act spontaneously and voluntarily towards objects in that impaired visual field. The connection seems clear: “Why, then, does the thirsty blindsight subject fail to reach for the glass of water? ... [H]e lacks phenomenal consciousness with respect to the relevant portion of the field of view. Lacking that consciousness, information about the glass fails to arrive at the centers of reasoning and action. He doesn't believe that there is a glass of water present, and so he doesn't reach for it” (Tye, 1996, p. 301). Block (1995) summarises this well: “in blindsight, both A[ccess]-consciousness and P[henomenal]-consciousness are gone, just as in normal perception both are present. This suggests an intimate relation between A-consciousness and P-consciousness. Perhaps there is something about P-consciousness that *greases the wheels of Accessibility*” (p. 262, my emphasis). And this is precisely my claim: it is the case that some phenomenal consciousness *enables* the operation of some non-phenomenal functioning. The blindsight case supports this conclusion. Of course, blindsight patients are at a severe evolutionary disadvantage if they fail to recognize those things which are essential for survival.

Phenomenality is also necessary in non-phenomenal processing. Crick and Koch (2007), as well as Ramachandran and Hirstein (1997), cite that the “filling-in” that the mind does is evidence for the necessity of phenomenal consciousness.⁶ Crick and Koch (2007) note that the information received as sensory input to a system is often too lacking or ambiguous to output an appropriate mental state. For example, it is commonly known that the human visual system includes a blind spot: a small spot of the retina which lacks photoreceptors with which to detect visual input. In such cases, inputs (so, parts of perceived images) are “guessed” by phenomenally conscious systems — this is the phenomena of filling-in. It is not that the missing

⁶ For a review of the literature see Dennett (1992).

information is deduced or responded to automatically (non-phenomenally), but that the missing information is filled in *phenomenally*, so that there is something it is like to see the missing part of an image (an experience), despite the lack of unambiguous sensory input. Ramachandran and Hirstein cite this as evidence that consciousness provides “sensory support” to the non-phenomenal functions of the mind in their work of processing inputs into outputs. Thus, consciousness has a direct, supporting part to play in the work of producing behaviours, and is thus evolutionarily beneficial to the entire system. This idea of consciousness as supporting non-phenomenal functioning is key to the view I am trying to propagate. Earl also writes: “consciousness must have a nonexecutive biological function — a secondary or *supporting* role to associated neural mechanisms that do have executive functions” (2014, p. 708).

Let’s apply this to the example of pain. Pain can be separated into the immediate, automatic *behaviour* of withdrawing from a painful stimulus, and the associated painful *experience* (or qualia) of a pain. It is my claim that phenomenal consciousness is causally necessary in such functioning; it is not that phenomenal features determine and guide automatic behaviours, but that phenomenal features play a supporting role in the generating of these behaviours.⁷ A problem arises here, however: the idea of pain as having two components (an immediate withdrawal followed by the experience of pain) does imply an obvious contingency. For one could fulfill the first without the second (think of zombies), or the second without the first (i.e., phantom limbs [Melzack, 1992]). However, Ramachandran and Hirstein write: “the non-qualia-laden pathway has a fixed output (withdrawal) and therefore doesn’t have qualia in our scheme. [What you can do about] [t]he pain you experience, on the other hand, is flexible. You can put some medication on it, or you can run away from whatever caused it” (1997, p. 439). The proposed two-part response implies that the immediate response — the automatic behaviour of withdrawal — is insufficient or lacking without a phenomenal state with the same function. Phenomenal consciousness affords flexibility and spontaneity to better aid non-phenomenal functioning; to ensure the survival of the creature. It is not that there are physical, automatic responses that ensure survival (automatic behaviours to remove damaging stimuli), and then the “bonus” of some magical phenomenal entity (that makes pains feel bad) — it is that phenomenal consciousness is itself a physical, biological process, with the very same function as those automatic counterparts. This means that although there appears to be a two-part response to stimuli, the two parts are both parts of one and the very same biological process, *working towards the same function*. Without qualia, the system’s function would not be fulfilled, because half of its processing would be lost. Again, I’d like to emphasise that this is not a dualist view — it is not that qualia work on

⁷ See also Gray (2014).

a phenomenal level, while non-phenomenal processes work on a physical level; qualia are the phenomenal features of non-phenomenal processes which work to fulfil the functions of those non-phenomenal processes. Thus, one might posit that the painfulness of a pain (a quale) is useful in the non-phenomenal processing of that pain because it affords the flexibility to choose whether or not to visit a hospital. The conscious experience of pain is therefore a necessary part of pains, supporting automatic behaviours by affording the luxury of a choice, to choose those most apt for survival.

The Representational Contents of Qualia

The phenomenal features of our cognitive functioning have the job of greasing the wheels of our non-phenomenal processing. But, how do qualia *do* this job? If qualia are not epiphenomenal, how are they so good at affecting our non-phenomenal systems? Qualia, I posit, are necessarily representational for phenomenal consciousness to do its job of work.

Viewing consciousness as a supporting process to non-phenomenal functioning means that we must specify the relationship between the two processes — this relationship is a representational one. If non-phenomenal functioning suffers from a lack of phenomenal support (as was shown in blindsight cases), and the relationship between them is representational, then this representational feature seems to be necessary for the *successful* functioning of non-phenomenal processes. It is in this way that we can characterise qualia — we observe that these are features necessary for successful non-phenomenal functioning, and this, combined with the view of consciousness as the process that enables successful non-phenomenal functioning, means that we can attribute these representational features to phenomenal consciousness, as its qualia.

The contents of consciousness are just those properties by which we can differentiate between conscious and non-conscious states. Conscious representation is most often theorised in terms of Russellian representationalism.⁸ Content is Russellian if it consists in just the properties or objects to which a state is intentionally directed; the Russellian content of an experience of a “red square” is just its properties of “redness” and “squareness.” I will adopt, however, a Fregean view of representational content, which consists of a “mode of presentation,” rather than any object or property itself of that experience. Thus, all that is required for sameness of a certain phenomenal content is just the same mode of presentation.

Let’s refer back to Figure 2. Russellian representationalism, in this diagram, would identify phenomenal content with A: some actual property or object of the external world, perceived by the senses. Given that we have placed phenomenal

⁸ See Chalmers (2004) for an overview.

processing in B, however, and that representational contents are necessary to that processing, those representational contents must too be placed somewhere in B. Thus, Russellian representationalism cannot be adopted on my view. Fregean representationalism, however, allows for this placing of representational contents in B; the specification of a mode of presentation means that we can maintain a direct link between A and B, and this is why we can call these contents representational at all.

The empirical evidence that we have already discussed in support of the claim that phenomenal consciousness is evolutionarily beneficial leads us to this representational view. I have argued that consciousness can only have biological value as input to mechanisms that determine behaviour, and thus, it in this way that modes of presentation become useful as opposed to Russellian representations. The modes of presentation that consciousness possesses work as input to mechanisms that determine behaviour. The inputs of a functional system mean nothing until they are represented to other (either phenomenal or non-phenomenal) processing systems. It is in virtue of a representational quality of qualia that a system can perceive inputs at all. Thus, the mind must receive inputs as *already represented* in some way — the representations are not raw or directly external, but are mediated instantaneously by the senses. And it is a Fregean, rather than a Russellian view of representations that can account for this. Since it is input to non-phenomenal mechanisms that causes the generation of behaviour, and it is affecting behaviour that can be evolutionarily beneficial, it is in this way that representations can be valuable to an organism in aiding survival.⁹

To give an example, above I discussed Earl's (2014) account of qualia as information of various sorts. There is clearly a representational aspect to this account, for it is information *about* the external world in the form of representations that then permits its use in the FRM. The account posits information that represents both the world *and our phenomenal states themselves*. Earl writes: "The fact that I am in pain is information, but the pain itself is information about possible bodily damage" (p. 708). In this way, the representational content that is mentioned must be Fregean. If representational content is identical to properties or objects in the external world (the Russellian view), then it seems that the mind would not be able to represent phenomenal states within its own system. Phenomenal states are often described as transparent — that is, when introspecting about how our states feel, it is very difficult to identify specific features or properties of those states that could be represented elsewhere. We recognize only the features of what is being represented. On the Fregean view, it is merely a case of defining representations of internal states as having been arrived at via a different mode of presentation

⁹ It is important to note that Fregean representationalism is internalistic; I don't think Putnam (1975) or Burge (1988) succeed in their thought experiments — despite the identity of the Russellian content of H₂O and XYZ, it is plausible that their modes of presentation differ.

than those representing external features of the world. These are then sufficient for use in the FRM — for example — to afford flexibility in generating behaviour.

The filling-in phenomena also requires a Fregean, rather than a Russellian, perspective, for the representation of non-existent inputs cannot be identical to properties or objects in the external world — it is precisely these that are missing. Thus, similarly, input that is filled-in by phenomenal consciousness can be said to represent with a different mode of presentation to inputs that originate from the external world. Indeed, Ramachandran and Hirstein have identified how these modes of presentation might differ empirically; qualia which maintain a certain level of irrevocability get treated as representations of the external world, while revocable representations (of beliefs, of hallucinations, of imaginings) are categorized as such because of their failure to reach this intensity. They write: “there is a link between the strength or vividness of a quale [the power of its effect on the system] and the degree of its irrevocability” (1997, p. 437). Again — as an example — it is the explicit, irrevocable representational contents that are reported to the FRM for further processing, and so, this mode of presentation tells the system more about what is being represented than just the properties or objects that it is representing. Modes of presentation can tell us, via a measure of irrevocability, where the representation originated and how rationally we should treat it. This Fregean view of representational content also means that we can attribute a role to phenomenal consciousness that is evolutionarily beneficial: “As Shakespeare said: ‘You cannot cloy the hungry edge of appetite by bare imagination of a feast.’ Very fortunate, for otherwise you wouldn’t go eat, you would just generate the qualia associated with satiety in your head!” (Ramachandran and Hirstein, 1997, p. 439).

So, What is Consciousness?

We have come some way in working out a characterisation of the nature of consciousness. Phenomenal consciousness is a supporting system for the functioning of non-phenomenal processes in the mind. The causal role that consciousness plays can affect behaviour, and is thus evolutionarily beneficial to an organism that possesses it. The Global Workspace and blindsight cases show how the function of consciousness may be related to the generating of spontaneous and flexible behaviour, and thus may be related to rationality and decision-making. Qualia are the experiences of consciousness, and their Fregean representational content enables the successful operation of non-phenomenal functions.

Aside from merely motivating this view of the nature of phenomenal consciousness, it was suggested that such a view can overcome arguments resting on a view of consciousness as an unexplainable *entity* and the intuitions of the contingency about our possession of this entity. It seems to me that viewing consciousness as evolutionarily beneficial in cognitive functioning means that we can overcome epiphenomenalism; consciousness must have some kind of

affective power if it aids the survival of a creature who possesses it. Zombies are inconceivable, and therefore impossible, if we grant that the causal efficacy of consciousness affects our behaviour in some way. We have established that a zombie who appears physically, functionally, and behaviourally identical to us would indeed experience phenomenally in just the same ways that we do. If zombies are impossible, then dualism is false. Our intuitions about the contingency of consciousness are illusory and misattributed: consciousness is metaphysically contingent, but is causally necessary because the role it plays is valuable to creatures. Consciousness is just the physical process that aids our survival by virtue of its representational properties.

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