Review of Tim Bayne's *The Unity of Consciousness*

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Tim Bayne, *The Unity of Consciousness*, Oxford University Press, 2010, 341pp., $55.00 (hbk), ISBN 9780199215386.

Tim Bayne's *The Unity of Consciouness* is the most comprehensive treatment of the unity of consciousness to date. The main project of the book is to specify and defend a version of the unity thesis, the thesis that a subject's experiences are necessarily unified. The discussion is clear, detailed, and empirically informed. Bayne is fair to his opponents, and his arguments are largely convincing. Overall, this is an impressive work.

The book is divided into three parts: Part I specifies the unity thesis and provides relevant background material. Part II argues that the unity thesis is true. Part III discusses implications of the unity thesis.

The notion of unity relevant to the unity thesis is phenomenal unity: Experiences are *phenomenally unified* just in case they are subsumed by a single conscious state, that is, just in case there is something it is like to have the experiences *together*. For example, a visual experience of a red apple and an auditory experience of a trumpet are phenomenally unified just in case there is something that it is like to experience the red apple *while* hearing the trumpet. It can also be useful to speak of phenomenal fields, where two experiences are in the same *phenomenal field* just in case they are unified. Bayne develops a *mereological account* of phenomenal unity: "[C]onscious states are phenomenally

unified in virtue of the fact that they occur as the parts of a single conscious state." (p. 20)

The unity thesis claims that, necessarily, a subject's experiences at a time are unified. More precisely, the claim is that "[n]ecessarily, for any conscious subject of experience (S) and any time (t), the simultaneous conscious states that S has at t will be subsumed by a single conscious state—the subject's total conscious state." (p. 16)

The relevant notion of necessity is not conceptual, metaphysical, or nomological necessity, but something weaker: Bayne aims to establish that there are no types of cases of phenomenal disunity in human subjects.

Although Bayne develops his favored view of subjects of experience in Part III, for the purposes of the discussion in the first two parts, he assumes a biological conception of subjects: subjects are human animals. Thus, the unity thesis that Bayne argues for can be glossed as follows: Necessarily, concurrent experiences in human animals are phenomenally unified. It is worth noting that taking subjects to be human animals makes the unity thesis more tendentious and difficult to argue for than it would be on alternative conceptions of the subject. For instance, we cannot defend the unity thesis from objections arising from the case of split-brain patients by claiming that split-brains house two subjects of experience.

Part II argues for the unity thesis. The argument proceeds in two stages. First, Bayne argues that there is introspective evidence in favor of the unity thesis (Chapter 4): When we consider our overall conscious state, we introspectively judge that our experiences are unified. Next, he considers and argues against various alleged counterexamples to the thesis. This second stage, which spans several chapters, carefully examines normal cases of perception and cognition, as well as abnormal cases of anosognosia, multiplicity, schizophrenia, hypnosis,

and the split-brain syndrome, and argues that the most plausible accounts of these phenomena are in line with the unity thesis. The discussion seamlessly integrates an impressive amount of relevant empirical data.

One of the most interesting proposals in the book is Bayne's account of the split-brain syndrome, the *switch model*, on which split-brain subjects have a single stream of consciousness that alternates between the two hemispheres. Bayne's main source of support for the switch model is a set of studies showing that in some experimental conditions only the processing occuring in one hemisphere is available to response systems, suggesting that only one hemisphere's processing corresponds to conscious experience (see e.g. Levy et al. (1972)). The evidence is intriguing and suggestive, and establishes Bayne's switch model as one that ought to be taken seriously.

Part III explores various implications of the unity thesis and other related issues. Chapter 10 discusses the implications of the unity thesis for theories of consciousness and argues that the unity thesis supports a holistic conception of consciousness. Chapter 11 examines the relationship between unity and embodiment. Chapter 12, the final chapter, aims to provide a notion of the subject of experience (or equivalently, the *self*) on which the unity thesis is a conceptual truth. Bayne argues that existing views of the self fail at this task and instead proposes *virtual phenomenalism*. According to virtual phenomenalism, all experiences involve a *de se* representation of a self, and due to our cognitive architecture, all concurrent *de se* representations in a single phenomenal field are about one and the same virtual self. These selves have no real existence beyond our representing them, so they are merely *intentional* objects. Bayne argues that given the above story about virtual selves, all and only the experiences corresponding to a single virtual self at a time are phenomenally unified with one another, and thus that on virtual phenomenalism the unity thesis is a

conceptual truth. For interesting discussion of Bayne's virtual phenomenalism, see Shoemaker (2011).

In the space remaining, I will discuss two potential worries with the overall argument. The first concerns the initial introspective evidence for the unity thesis, while the second concerns the relationship between the unity thesis and Bayne's favored account of the individuation of experiences.

Bayne claims that the unity thesis receives some initial support from the *unity judgment*, the introspective judgment that our experiences are unified. However, it is unclear just how strongly the unity judgment supports the unity thesis. While Bayne convincingly argues that our introspective mechanisms are good detectors of the *presence* of unity, he does not convincingly argue that they would be good detectors of its *absence*. To detect the absence of unity, a subject would have to detect two experiences belonging to her same human animal that are not unified. Presumably, her introspective judgments regarding unity would be disunified with at least one of these experiences. However, it is not clear that we can detect experiences in distinct phenomenal fields from our judgments about them. To take an extreme case, consider two sets of experiences that are clearly not unified: my experiences and your experiences. I cannot tell *from introspection* that our experiences are not unified, because I cannot notice your experiences by introspection in the first place. If a single human animal can house multiple phenomenal fields, they might likewise be inaccessible to each other and each other's judgments. Thus, it seems that at best we have introspective evidence that the *experiences we notice* are unified. Absent some further reason to think that we notice all experiences associated with our human animal, the unity judgment only weakly supports the unity thesis. Still, this may be enough to provide the required initial motivation for the unity thesis such that it is, as Bayne claims, innocent until proven guilty.

The second worry concerns the way Bayne individuates experiences and its consequences for the unity thesis. According to Bayne's *tripartite account* of the individuation of experiences, (token) experiences are individuated by their phenomenal properties, their time of occurrence, and their subject (p. 24). In other words, any two distinct token experiences must differ either in their phenomenal properties, their times of occurrence, or the subject that has them. If we accept the unity thesis, the appeal to subjects in individuating experiences seems plausible. It's difficult to imagine a subject having two concurrent phenomenally identical experiences of the sound of a trumpet in the same phenomenal field. Would the sound be twice as loud or experienced as coming from two different directions? No, since this would involve the experiences differing phenomenally. Would one of the experiences temporally precede the other? No, since such experiences would not be concurrent. There just doesn't seem to be enough "space" in a single phenomenal field for two concurrent experiences of the same phenomenal type. However, there seems to be no prohibition against a subject's having two concurrent phenomenally identical experiences in *two distinct* phenomenal fields. But the tripartite account rules out this possibility by fiat. Accordingly, those who accept the possibility of disunified experiences in a single subject have reason to reject the tripartite account.[1]

The above-mentioned feature of the tripartite account is not without consequence. It plays an important role in Bayne's argument against the widely-

[1]If we assume the biological conception of subjects, the tripartite account ends up claiming that a single human subject cannot concurrently have two phenomenally identical experiences, which is quite implausible. In the context of a different discussion, Bayne presents the case of Cerberus, a two-headed dog. Cerberus is a single biological subject with two phenomenal fields (p. 271). The problem is that it seems that each field could concurrently have two phenomenally identical experiences, which would be precluded by the tripartite account, if it applied to Cerberus. Although the tripartite account is primarily meant to apply to humans, one might expect the correct view of the individuation of experiences to apply to dogs as well, so it is an objection to the version of the tripartite account that takes subjects to be biological organisms that it does not apply to Cerberus. In any case, one might worry that there could be human cases relevantly like Cerberus. (Bayne seems to think that dicephalic conjoined twins are not such cases (p. 275), but it is not entirely clear why.)

held *duplicationist two-streams* view of the split-brain syndrome. On the two-streams view, split-brain patients have disunified experiences: They have two distinct streams of consciousness in both experimental and everyday circumstances. Bayne argues that the two-stream view is incoherent, since it claims that the split-brain subject sometimes has two concurrent experiences with the same phenomenal qualities, which is ruled out by the tripartite account (p. 203–4). Bayne considers the two-streamer reply that we ought to reject the tripartite account. In response, he refers to some of his largely convincing arguments against other accounts of the individuation of experiences. However, one account that he does not consider and that may be particularly appealing to the two-streamer is an amended tripartite account that replaces reference to subjects of experience with reference to *streams of consciousness*: Experiences are individuated by their phenomenal qualities, time of occurrence, and the *stream* to which they belong. It is unclear whether such an account can succeed. One might worry that our best account of streams of consciousness makes reference to experiences, making the proposed account of the individuation of experiences circular. However, perhaps there are alternative analyses of streams, or perhaps we can take them as basic. In any case, this seems to be an alternative worth considering.

Additionally, the very availability of the argument strategy employed against the two-streamer is problematic. A similar strategy can be used to argue against the coherence of any alleged phenomenon that yields counterexamples to unity: Suppose the opponent of unity presents an alleged case of a subject with more than one phenomenal field. She should accept that the multiple phenomenal fields can concurrently contain experiences with the same phenomenal properties, assuming there are no special additional considerations precluding this possibility (e.g. a reason to that one phenomenal field can only contain visual

experiences, while the other can only contain auditory experiences). To deny that both phenomenal fields can concurrently contain experiences with the same phenomenal properties without appeal to special considerations would appear unmotivated and *ad hoc*. But then her view is incompatible with the tripartite account, which states that such a case is not possible, and the unity theorist can dismiss the alleged counterexample on that basis. The unity theorist has an almost unbeatable strategy for dealing with counterexamples: Absent special additional considerations, any candidate example of a subject with more than one phenomenal field is incompatible with the tripartite account and can thus be dismissed. To be clear, Bayne only uses such a strategy to argue against the duplicationist two-stream view of the split-brain syndrome. However, the mere availability of this strategy is problematic: The unity thesis is entailed by the allegedly innocuous tripartite account of the individuation of experience together with the absence of special additional considerations. This entailment is inappropriate, since the version of the unity thesis under consideration is meant to be an empirical thesis, open to empirical disconfirmation, including empirical disconfirmation of the sort that can be ruled using the strategy described above. This worry, however, can easily be avoided by rejecting the tripartite account, but that would undercut Bayne's argument against the two-stream view of the split-brain syndrome.

Incidentally, the tripartite account of experience is more plausible on virtual phenomenalism than it is on the biological conception of the subject or on any other conception of the subject on which it is not a conceptual truth that a subject's experiences are unified. The problem with the tripartite account was that it ruled out by fiat concurrent disunified experiences with the same phenomenal qualities belonging to the same subject. If, as Bayne claims, on virtual phenomenalism it is a conceptual truth that a subject's experiences are

unified, this possibility is already ruled out and the tripartite account does no unwanted damage.

The Unity of Consciousness is an impressive, carefully argued, and empirically sophisticated treatment of one of the most perplexing features of conscious experience. There are many interesting issues discussed apart from those mentioned in this review. Anyone interested in consciousness or empirically oriented philosophy of mind should read this book.[2]

References

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