Scientifically-Flawed Bypass of the Hard Problem Doesn't Make It 'Easier'!

Comment on Melloni et al., 'Making the Hard Problem Easier'

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Abstract: In the flagship journal *Science*, Melloni *et al.* recently claimed to offer a way of making the 'hard problem' of consciousness easier. In fact, in their chosen analytical setting, the hard problem is impossible, and their claims simply further muddy the already-opaque waters in the mainstream field of conscious-experiential science.

Commentary

The current mainstream approach to the neuroscience of consciousness – the flavor of consciousness science that makes it to the illustrious pages of *Science* – is implicitly set in dynamically-orthodox physics. 'Dynamical orthodoxy' here means broadly that information can only be transmitted by the currently-known interactions of fundamental particles and their aggregates, plus the currently-known mutual interactions of those aggregates with spacetime. (This is just a statement that every form of mainstream science must cohere with the basic laws of reality as presently asserted by fundamental physics, unless and until those laws are revised according to the standard process of science – for example, via compelling data. It is not hyper-reductive, super-mechanistic, or behaviorist, as it allows – *in principle* – for all the kinds of naturalistic approach that the current mainstream neuroscience of consciousness adopts, including *non*-reductive physicalism. Nevertheless, consciousness science isn't free to follow this 'in principle' allowance down any path it chooses. Any attempted approach to a fundamentally-new class of phenomena – as consciousness definitively *is*, relative to physical theory – must precisely and rigorously establish a sound investigative methodology, before claiming to be part of science-as-a-whole.)

Melloni *et al.*'s proposal [1] simply continues the modern tradition in the mainstream field: ignore the methodological contradictions inherent in any experimental science of phenomenal consciousness (conscious experience), *which is set in a dynamically-orthodox physics* [2]. This tradition doesn't (and can't) give any insight into the problem of phenomenal consciousness. It simply **can't** solve the Hard Problem [3], as restated in this form [4-7]: how is a dynamically-orthodox system able to report on the qualia-content of its own conscious experience [2, 5-9]? (This form is actually closer to the *meta-problem* of consciousness [10], which concerns the meaningful speakability of the words 'conscious experience'. But the insolubility of the meta-problem implies that of the hard problem, however stated, because *any* hard-problem statement *must* invoke the phrase 'conscious experience'!) Dynamical-orthodoxy precludes the transmission of qualia-discerning information through a matter-constituted system [2-3, 5-9]. So it denies the ability of humans to report reliably on their own conscious experience to materially-distinct others, *e.g.* to experimenters. (This observation is apparently pivotal in Dennett's often-misunderstood position [11-12]. A deep analysis [9] shows it also intensifies as-yet unresolved problems posed by the 'unfolding argument' for experimental approaches to almost every current conscious-experiential theory [13, 14] – including [14] *all* of those discussed by Melloni *et al.* The counter-intuitive nature of this reliable-report denial can be resolved in two straightforward ways [2, 5-9].

First, dynamic-orthodoxy may be true and our intuition may be unreliable. Second, dynamic-orthodoxy may be false and our intuition may be accurate!)

Koch and others working in the field seem to rely on the reassurances of philosophers such as Chalmers [3, 15], that we *can* work around the following knot: a blatant *contradiction* between experimental methodology (which depends crucially on reliable report) and a dynamically-orthodox presumption (which denies report any reliability), together with a vital and absolute need to preserve the *contradiction-free* character of science. (Minimally, if we're uncertain that science *is* contradiction-free, we should seek to abstain from *introducing* clear contradictions.) In fact, this knot *can't* be unpicked [2, 9]. Contradictions of the kind involved here can only be resolved by altering one or more conflicting structural features, not by adding further assumptions *e.g.* as 'bridging principles' [15]. (Notably, it's not possible to add the assumption '... and this doesn't lead to contradiction', to a methodological framework or an axiomatic introduction that *does, without introducing even more contradiction!*) In the present case, 'altering' means either giving up on an experimental science of conscious experience, or investigating the hypothetical possibility that (dynamically-unorthodox) novel information-transmission mechanisms may occur in the brain/conscious-experience relationship [2, 5-9]. (The latter possibility needn't involve either dualism or violation of causal closure. It can be as simple as postulating and then testing for dynamically-novel matter-states, *e.g. qua* strong emergence with downward causation [16]. Ultimately, dynamical orthodoxy or unorthodoxy is a fact-of-nature *experimental* issue [2, 8-9].)

Put bluntly, either it's an illusion that I can speak reliably about the contents of my conscious experience (which requires dynamical-orthodoxy-violating information-transmission), or dynamical-orthodoxy does not pertain in our Universe [2]. No amount of philosophical wordsmithing, however ingenious, can avoid this choice. (For non-specialists: the latter case means that brain-activity must be at least a bit 'more wiggly' than a dynamically-conventional, current-physics, accounts would predict. Again, this doesn't require 'supernatural' violation of causal closure, but simply – *if* it exists – an extension of our understanding of what the natural order *is*.) In fact, non-contradictory conscious-experiential science is *impossible* under dynamical orthodoxy [2, 9], and mainstream methodologies that don't assume the answer [14] *actually make covert appeal to non-physical mechanisms* [3, 7, 9]. Thus, *hypothesizing* and *testing* for dynamical-unorthodoxy *of a specific kind* is actually the maximally *non-supernatural* way to advance *science*. Hiding anything is *unscientific*. Hiding an appeal to non-physical mechanisms and explicitly claiming physicalism is *anti-scientific*. The kindest interpretation, then, is that Melloni *et al.* – and many other mainstream practitioners – simply don't know what they're doing. But the means to knowing are directly available [2], and have been for some time [4-8]. They should know, by now.

Experimental programs can be straightforwardly framed to investigate the natural-order existence of the kinds of dynamical phenomena that would support a truly-scientific science of conscious experience [8-9]. Melloni *et al.* perhaps imply that a true science of conscious experience may eventually demand CERN-scale investment. We *should* devote that kind of resource to consciousness (although this will likely require a stronger justification [17] than that given by Melloni *et al.*). But devoting it to the tragically-flawed tradition of modern conscious-experiential 'science' would be, well ... adding a financial tragedy to the current methodological train-wreck!

References

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