Review of: "A Calculus of Qualia"

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I see two major problems with this paper. First, the notion of "calculus" here employed is so loose that it ends up to be useless. Second, the goals of the paper are unclear. A third problem, related to the lack of rigour in the discussion of some specific topics (e.g., the notion of "qualia", the spectrum inversion, the hard problem), has already been discussed by other referees.

Concerning the first problem, I assume that any meaningful use of the notion of "equation" requires that this is defined over an algebraic structure. In this case, the elements of the structure are qualia (though the author talks sometimes of "mixed qualation" and introduces a difference between naming and referring -- this involves further complications that I shall not discuss here). The author introduces two operations, $+$ and X, over the structure, so this is plausibly a ringoid. Addition behaves like subtraction, while the behaviour of the product is left open to different interpretations. According to one of them, product is apparently commutative and distributive. No such kind of properties are discussed concerning addition. The ringoid is then augmented with the variable [x], and in 2.7 the author presents (among other functions) something like an evaluation homomorphism for [x]. Still, no real clues are provided regarding how qualations should be solved. This is because the algebraic structure of qualia -- and the relation between the algebraic structure of qualia and other structures, like the structure of the "pointers" – are not well defined. The restrictions over the admitted operations are so vague that make the solution of each equation almost entirely relying on the personal interpretation of the reader. I understand that the author aims to provide a calculus that can be modified by authors with different philosophical preferences, but without any further algebraic constraint concerning the features of the calculus, the calculus itself is too vague and practically worthless.

Passing to the second problem, which is related to the first. What is the point of studying qualations? One may think that they are intended as tools for assessing some substantive question concerning the identity or mismatch between qualia and "pointers". But, if this is the case, the mathematical characterisation provided by the author is insufficient, for the reasons mentioned above. So, more modestly, one may think that qualations are intended as tools for reconstructing different philosophical positions about qualia, without establishing which position is the correct. They would play an "elucidatory" role, rather than an explantory one. However, even in this case, it is unclear how the framework presented in the paper improves more classic reconstructions of those positions or help elucidating them (the remarks in sections from 2.7 to 5.x, which seems to pursue this aim, are far too concise and cryptic). The author should make his assumptions and goals more explicit and work more in the details the elements of the calculus.