## Consider

(1) the phenomenal character and/or the phenomenal concept engendered by photons of wavelength 700 nm
and
(2)

I assert that (1) and (2) are irreducibly different, if understood in the correct language. That is the crucial point of this short note. I further assert that the difference between (1) and (2) is not 'obvious and superficial' but rather 'not obvious and profound'.

One may try to fix (1) by something like
(3) the phenomenal character and/or the phenomenal concept engendered by photons of wavelength 700 nm as understood in the correct language

But the point is now that (3) is also irreducibly different than (2), and in more-or-less the same ways that (1) is.

This has many consequences.

1. (1) and (3) only point to the term in (2). Supposing that their terms were the same as the term in (2) is to make the classic mistake of supposing that the finger that is pointing to the moon is actually the moon itself.
2. taking into account the differences between (1) and (3) on the one hand, and (2) on the other hand, are necessary if we are going to say that qualia are irreducibly 1-st person (which is to say, not reducible to the 3rd-person in any way).
3. (2) uses a different term from (1) and (3) in our language. This difference is 'non-trivial'. The difference carries a non-zero amount of information.
4. There is no expression in black-on-white (black words on a white background) whatsoever that coveys the information in (2).
5. I cannot tell if you are a zombie. But, given (2), I can tell that I am not a zombie. The upshot is that 'is he a zombie?' is an ill-posed question (and see 7.). So it is not surprising an answer is not forthcoming.
6. It's irrelevant whether Mary can see colors when she exits the black-and-white room and steps into a the colorful world. The relevant question is whether I can see colors.
7. The terms in (1) and (3) cannot contribute to the statement of a hard problem (question). And if they do not ask a question it is no wonder there is not an answer forthcoming.
8. One can imagine answers to purported hard problems using the terms in (1) and (3) that are nevertheless not answers to hard problems using the term in (2). This may not be obvious, but it is selfevident.
9. It is conceivable that we can vary (1) and (3) independently of varying (2). For all we know, this actually happens in our universe. (And I have used this fact in the definition of an ontology in a different paper.)
10. The copyright of this paper must include actual red. Otherwise it is not a copy. This fact is not true of any philosophy paper ever written up to this point (or actually up to several previous papers in this line).
11. Suppose we assume that the behavior (in some given sense) of the terms in (1) and (3) is the same as the behavior of the term in (2). What that shows (proves, I would say) is that 'behavior' is not what we're talking about when we say 'irreducibly 1st-person'.
12. Let there be a professor who writes the number 5 on a chalkboard in a classroom with 42 students. Then, clearly, there is some sense in which there is just one number 5 in the classroom. But suppose the professor has colored chalk, and writes the term in (2) on the blackboard. Then, clearly, there is some sense in which there are 43 different reds in the classroom ( 42 students +1 professor).

One might try to capture (2) by something like
(4) in two-valued semantics define the term $t=t(x, y)$, where $x$ is 1 -st person and $y$ is 3rd-person.

But this doesn't work either, for more-or-less the same reasons that (1) and (3) don't work.

One may write
(5) blue light + red light = magenta light
(6) blue paint + red paint = purple paint
but
(7)

where, in (7), the two terms on the left hand side are apprehended by two different subjective states, but the two terms on the right hand side are apprehended simultaneously by one subjective state. There are two qualia on the left hand side: first blue and second red, (or, depending on how they are apprehended, first red and second blue), but only one quale on the right hand side: blue and red.

The upshot is that (7) is different from (5) and it is different from (6). I conclude that (7) cannot be reduced to (stated by) either (5) or (6).

In other papers (see PhilPapers) I've used the word 'qualation,' which is qualia + equation. A qualation necessarily contains qualia (and not merely references to qualia). In this paper, (1), (3), (4), (5), and (6) are not qualations, whereas (2) and (7) are qualations (where we may regard (2) as a simple kind of
qualation). The consequences numbered 1. through 12. (after formulation (3)) are not qualations. The term 'the term in (2)' is not a qualation. The term 'let's suppose $X$ is a qualation' is not a qualation.

A hard problem is a qualation. Thus
(8) why is my red red?
is not a hard problem, but
(9) why is my red
is a hard problem.
As I've written elsewhere (see PhilPapers), hard problems might be able to be solved this way: on Dualism, record the neural processes R that correlate to experiencing red qualia. Then record the neural processes W that correlate to having the subjective experience of answering a why? question. Then, in some judicious way, induce the processes of R and W together (if possible), and a (1st-person) answer to the relevant hard problem should be forthcoming. The answer to a hard problem (in addition to the question) is a qualation. There is a different hard problem for each quale.

