Equations, Qualia, and Qualations

Notes on qualia.

I will assume the reader is already fluent with D. Chalmers' 'direct phenomenal concepts', in *The Content and Epistemology of Phenomenal Belief*, http://consc.net/papers/belief.html

1.

It could be argued that it is not that science cannot handle qualia, it's just that they have to be treated differently than 3rd-person phenomena. Take a green quale G (I should say: a quale of greenness) and a red quale R (a quale of redness). They are not the same. Usually we would write something like

(1) $G \neq R$

But we can write this as a 1-st person inequation (I'll just call these 'equations', meaning 'propositions'.)

(2) ▌ $\neq$ ▌

It could be that tomorrow we discovered that the correlates to consciousness are radically different than what we now think they are. But the 1-st person eq. (2) *would have the same meaning*. It would be the same equation involving qualia—it is a *qualation*, if you will. (2) is a qualation but (1) is not a qualation.

For example we may put on colored glasses and the wavelengths of the incoming photons could be changed to compensate appropriately. The left term of (2) and the right term of (2) would stay the same, so we have the same qualation. One can even ask: what is the set of 3rd-person configurations and processes that makes this qualation true?

To a person who cannot distinguish between green and red (2) is false. To a person who can distinguish them, it is true.

An instance of the 'actual' hard problem, or the hard problem involving qualia—a *qualoblem*, if you will, is

(3) Why does such-and-such a brain have an associated 1st-person experience ▌?

(No doubt (3) could be refined.)

Also,

(4) Why does such-and-such a brain, as it evolves in McTaggartian AB-spacetime (see below), have an associated 1st-person experience ▌?

Equation (3) is uneven, because the variable 'such-and-such a brain' ranges over brains but is not a brain itself, where as the qualia-variable is in fact a quale. An equation involving the actual brain could be called a *physation*. And if an equation is both a qualation and a physation (in all terms), it is best to call it a *qualiphysation* (plausibly better than *physaqualisation*).

The point is the profound difference between (1) and (2). (1) is an equation but not a qualation. (2) is an equation and a qualation.

2.

Write R for a variable that ranges over the possible [R]'s, and [R] for a quale of red itself. We will *pretend* [R] is a quale, for the sake of discussion, but [R] is not 'actually' a quale of redness, which the right side of (2) is. Let G be a variable that ranges over greens, [G] be 'actual' green, B be a variable that ranges over brains, [B] be an 'actual' brain, and [B2] be another actual brain, etc. For a function f_i both domain and range can be specified.

For example

(5) f_1: (B, [B]) –> ([B_2])

is a function from a domain variable B ranging over brains, and an actual brain [B], and has range actual brain [B_2]. The Dualist has it that there is no reduction of qualia to brains, so there are no functions which would solve the Hard Problem (HP)

(6) f_2: (R, [R], B, [B]) –> (B)

where R is a variable that ranges over the possible [R], and [R] is a red quale,

Note a Physicalist would have to account for *qualamaps* like

(7) f_3: (R, 🟥 , B, [B]) –> (B_2, [B2])

which could be said to be a *partial qualamap* because not all the terms are their 'actual' selves. The Dualist would have answers to the HP be something like this

(8) f_4: (B, [B], R, 🟥) –> (B, 🟥)

but clearly there are many ranges to try for a good model of answers to the hard problems.

One could define a *qualimorphism*

(9) Q(🟥) –> (🟩)

One could define two identity qualimorphisms

(10) Q(🟥) –> (🟥),   Q(🟩) –> (🟩)

Obviously, there is a mathematical structure as to the relations between qualia and qualimorphisms.

To a person who cannot distinguish between red and green, all three of these equations are the same qualations, and in some sense there would be only one identity qualimorphism.

3.

A non-pretend example of a map

(11) f_5: (R, [R], G, [G]) –> ([G])

is

(12) f_6: (R, ⬛, G, ⬛) –> (⬛)

This is a *qualunction,* if you will. In (12) the R and G are parameters that range over the possible ⬛, and ⬛, and ⬛.

Let R = red

Ok.

Yet, note

(13) I experience R

is different than

(14) I experience ⬛

You could say, let [R] really be red (as in (14)).

But we could say again

(15) I experience [R]

is different than

(16) I experience ⬛

No number of brackets [[R]]… is the same as in (14) or (16).

I can see how materialists could claim various solutions to (13) and (15), but I cannot imagine how that could be done with questions involving (14) and (16).

4.

Consider

(17) blue

and

(18) ⬛

I can see how how a materialist could convince themselves they had solutions questions involving (17). But I cannot see how they could solve questions in terms of (18) under any circumstances whatsoever.

Also, take colored lights (as given by a light bulb). Two lights, blue and yellow, give rise to a green light. So there is an equation

(19) blue_light + yellow_light = green_ light

but the following qualation is wrong:

(20) [blue] + [yellow] = [green]

since no matter how you arrange things this blue is blue, this yellow is yellow, and this green is green.

Therefore (19) and (20) do not mean the same thing.

We could give (19) as a *physation* in terms of neurons. But that move doesn't work to solve the hard problem: when you look at a neuron whose firing is associated with it experiencing blue it is not that the neuron looks blue under a microscope.
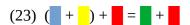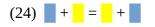
One could write

(21) [blue] + [yellow] = [blue] + [yellow]

That qualation is true.

(22) [blue] = [blue]

is also true. However

(23) ([blue] + [yellow]) + [red] = [green] + [red]

is false. It's not clear whether

(24) [blue] + [yellow] = [yellow] + [blue]

5.

I will assume the reader is already fluent with McTaggart's A-series and B-series. See McDaniel, Kris, "John M. E. McTaggart", *The Stanford Encyclopedia of Philosophy* (Summer 2020 Edition), Edward N. Zalta (ed.), URL = <https://plato.stanford.edu/archives/sum2020/entries/mctaggart/>.

It seems that

(25) A-series: $\tau = [\tau]$

because any variable τ obtains in and only in the 'actual' present [τ] (which is to say, *presently*). τ *presumes* [τ].

(26) B-series: t ≠ [t]

because t is a variable that ranges over possible B-durations (earlier times to later times), but [t] is the 'actual' duration.

Let the domain of functions f_i be

(27) (τ, [τ], t, [t])

The B-theorist asserts there is a function with domain (27) and range

(28) (τ, t, [t])

that doesn't lose information, and the A-theorist asserts there is a function with domain (27) and range

(29) ([τ], t, [t])

in light of (25), and the Presentist has as a range something like

(30) ([τ], [t])