

## The Logic of Qualia

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Let  $p$  be a statement of classical propositional calculus. We want to add cases for which  $p$  is a statement about qualia. Classically, if  $p$  is a statement it can have truth values  $T$  or  $F$ . But if  $p$  contains qualia it contains ineffable information. One way to allow for this is to let  $p$  take on the truth values  $(T)$ ,  $(F)$ ,  $(T, i)$  or  $(F, i)$  for 'true', 'false', 'true and ineffable' or 'false and ineffable'. For example I would give the sentence

'one way black appears to me is ████'

the truth-value  $(T, i)$ .

If  $p$  is true and  $q$  is true then  $p \wedge q$  is true. Some reflection shows that if  $p$  is true and  $q$  is both true and ineffable, then the statement  $p \wedge q$  is ineffable... One can go through the truth value alternatives for  $p \wedge q$  systematically, and, in fact, construct a truth table for  $p \wedge q$ :

Truth Table for  $p \wedge q$

	$q$	$(T)$	$(F)$	$(T, i)$	$(F, i)$
$p$					
$(T)$		$(T)$	$(F)$	$(T, i)$	$(F, i)$
$(F)$		$(F)$	$(F)$	$(F, i)$	$(F, i)$
$(T, i)$		$(T, i)$	$(F, i)$	$(T, i)$	$(F, i)$
$(F, i)$		$(F, i)$	$(F, i)$	$(F, i)$	$(F, i)$

Forgive the formatting.

Truth tables apparently may be given for other operators too. This gives a non-trivial enrichment of classical propositional calculus.

The end.

Some questions I would have for qualia logic (QL) include: What can QL teach us about the discussion about qualia? Could it be applied to help rule out any hypotheses about qualia? What's the structure of the theory? Is there always a model for QL? If we take our apparent experiences related to time, can we apply QL and \*derive\* a temporal logic? Might QL be related to quantum mechanics non-trivially?

If  $p$  has truth value  $(T, i)$ , then  $\neg p$  could be given the truth value  $(F, i)$ , or in some cases it could be given a truth value of just  $(F)$ .

Is there a difference in the logic of a zombie and the logic of a conscious being?

References

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