

Brief Notes on Qualia Logic

In some ways, QL uses the same trick as complex numbers. To get complex numbers we add a parameter i to the numerical value of a number, for its imaginary part. And in QL we add a parameter i to the truth value of a proposition, for its ineffable part. The complex numbers are developed using the 'surrounding' algebra, and QL is developed using the 'surrounding' logic.

There are at least four negation operators in QL.

One way to proceed is to define implication in terms of 'and' 'or' and 'not' [Leifer]. This is complicated and needs to be worked out.

Some of the truth values given in the truth tables [QL] can be challenged on philosophical grounds.

There's a difference in QL between 3rd-person behavior and ineffable behavior when more than one person is speaking, e.g. the logic of a discourse between Alice and Bob regarding qualia is different than a purely 3rd-person discussion... If Alice asserts p that has truth value (T, i) then Bob may give p any of a number of truth values depending on whether he believes Alice and if it is metaphysical or epistemic...

The QL of time needs to be worked out.

It's tempting to apply QL to everything. Quantum mechanics appears to have some objective and some subjective behavior [Zeilinger]. Can QL help clarify this? For example, suppose Alice and Bob perform independent spin measurements on correlated particles. Then, some sense, Bob's spin measurement outcome is ineffable because he cannot transmit his information to Alice faster than light. Yet he did perform the measurement and it is correlated with Alice's measurement outcome. So, arguably, the truth value of Bob's proposition 'measurement M gave me the outcome x ' has truth value (T, i) . Of course this is very speculative.