A PROBLEM FOR POPPER: CORROBORATION AND THE LOGICAL INTERPRETATION OF PROBABILITY

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How are we to understand the use of probability in Popper's corroboration function? Popper says logically, but this raises a problem that becomes apparent when his views on logical probability are compared with those of Keynes. Specifically, Popper does not make it clear how we could have access to, or even calculate, probability values in a logical sense. For first, he would likely want to deny the Keynesian distinction between primary and secondary propositions, and the underlying notion of knowledge-by-acquaintance with Neo-Platonic entities. Second, he would presumably reject not only the notion of non-numerical probabilities, but also the claim that the principle of indifference is aught other than a heuristic, given paradoxes such as Bertrand's.

An attempt might be made to solve this problem by appeal to semantic or possible world analyses over the relative truth-values of statements, but this seems to fail due to concerns relating to infinity: if the set of possible worlds in which p is true is infinite, and the set of possible worlds in which q is true is infinite, then no numerical value for $P(p, q)$ can be reasonably determined by a comparison between those worlds. As such, an all-too-familiar sort of criticism of Popper's view of science seems to loom large: if the corroboration function only makes sense when the probabilities employed therein are subjective, then what counts as impressive evidence for a theory might seem to be a matter of convention, or even whim.

However, we now have a new interpretation of probability at our disposal: the intersubjective interpretation, recently championed by Gillies, according to which probabilities can lie on a spectrum between the aleatory and the epistemic. Might we employ this to preserve the corroboration function, and deliver ourselves from Bayesianism, without succumbing to radical subjectivism?