Hidden-variable hypothesis in quantum paradoxes FLORENTIN
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— It would be incomplete to discuss quantum paradoxes, in particular Schrödinger's
cat paradox, without mentioning hidden-variable hypothesis. There are various versions of this argument, but it could be summarised as an assertion that there is
'something else' which should be included in the Quantum Mechanical equations
in order to explain thoroughly all quantum phenomena. Sometimes this assertion
can be formulated in question form: "Can quantum mechanics be considered complete?" Interestingly, however, the meaning of 'complete' itself remains quite abstract (fuzzy). An interpretation of this cat paradox suggests that the problem arises
because we mix up the macroscopic systems (observer's wavefunction and apparatus' wavefunction) from microscopic system to be observed. In order to clarify this,
it is proposed that the measurement apparatus should be described by a classical
model, and the physical system by a quantum model.

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