

## **Mauricio Suarez**

*Propensities and Conditionals in Quantum Mechanics*

### **Abstract**

I begin by motivating the propensity account of quantum mechanics. Very briefly I review how the introduction of probabilistic dispositions, or propensities, goes a long way towards providing a solution to several foundational issues, most importantly the notorious measurement problem. The key to quantum propensities is that they do not interpret quantum probabilities, but explain them.

I then take aim at a substantive analysis of such propensities in terms of conditionals. I argue that quantum propensities can not be reduced to conditionals. I argue instead for a relationship of partial entailment whereby quantum propensities entail particular conditionals in different experimental contexts and relative to different interpretations of the theory. The resulting view is deflationary and contextual and is open to both realist and antirealist interpretations of the term 'propensity'.

### **References:**

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