SOME STEPS TOWARDS A TRANSCENDENTAL DEDUCTION OF QUANTUM MECHANICS

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Abstract

The two major options on which the current debate on the interpretation of quantum mechanics relies, namely realism and empiricism, are far from being exhaustive. There is at least one more position available, which is metaphysically as agnostic as empiricism, but which shares with realism a committment to considering the structure of theories as highly significant. The latter position has been named transcendentalism after Kant.
In this paper, a generalized version of Kant's method is used. This yields a reasoning that one is entitled to call a transcendental deduction of some major formal features of quantum mechanics.

Keywords: Transcendental, quantum physics, laws of nature, objectivity

Subjects:
General Issues: Structure of Theories
General Issues: Laws of Nature
General Issues: Experimentation
General Issues: Determinism/Indeterminism
General Issues: Realism/Anti-realism
General Issues: Operationalism/Instrumentalism
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