

## HOW THOUGHTS AFFECT BRAIN IN NON-MATERIALISTIC QUANTUM ONTOLOGY

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If “materialism” is characterized by the property that all information and knowledge is encoded in matter, which can move no faster than the speed of light, then the validity of several simple predictions of quantum mechanics implies the non-validity of materialism: the structure of *macroscopic empirical phenomena* entailed by the validity of these predictions is incompatible with the specified characteristic of materialism. This result is proved by Bell’s renowned theorem and its generalizations. Indeed, the peculiar structure of the predictions of quantum mechanics had already, from the beginning, forced the founders to construe the theory to be not a description of a universe evolving in accordance with classical-physics-type mechanical rules, but rather a mathematical procedure for making statistical predictions about future experiences on the basis of knowledge gleaned from past experiences. It was about certain statistical regularities of events in our streams of conscious experiences. These quantum rules lead in a natural way to a non-materialistic quantum ontology based on events that have both directly experienced psychological described properties and related physically described properties. This non-materialistic quantum mechanical theory is applied here to the results of recent experimental studies that reveal a causal link between circumstances described in mental terms, such as conscious expectations and intentions, and subsequent brain events, such as the release of dopamine in the ventral striatum. The aim here is not to prove that this empirically observed connection between mentally described causes and physically described effects could not *eventually* be rationally reconciled with the precepts of the known-to-be-fundamentally-false materialist precepts. It is rather to describe the observed relationships as rationally understandable causal connections between specified components of the *currently existing* non-materialist quantum ontology.