

# Dartmouth neuroscientist finds free will has neural basis

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A new theory of brain function by Peter Ulric Tse, a professor of cognitive neuroscience at Dartmouth College, suggests that free will is real and has a biophysical basis in the microscopic workings of our brain cells.

Tse's findings, which contradict recent claims by neuroscientists and philosophers that free will is an illusion, have theological, ethical, scientific and legal implications for human behavior, such as whether people are accountable for their decisions and actions.

His book shows how free will works in the brain by examining its information-processing architecture at the level of neural connections. He offers a testable hypothesis of how the mental causes the physical. In contrast with philosophers who use logic rather than data to argue whether mental causation or consciousness can exist, he explores these issues by starting with neuroscientific data.

Recent neurophysiological breakthroughs reveal that neurons evaluate information they receive, which can change the way that other neurons will evaluate information and "fire" in the future. Tse's research shows that such informational causation cannot change the physical basis of current information, but it can change the [neuronal basis](#) of future mental events. This gets around the standard argument against free will that is based on the impossibility of self-causation.

Tse lays out his argument in his new book titled "The Neural Basis of

Free Will"—<https://mitpress.mit.edu/books/neural-basis-free-will>

Provided by Dartmouth College

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