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A Brief Survey of Introductory Quantum Cognition KIMIASADAT MIRLOHI, Loyola University New Orleans — This presentation is an introduction to quantum cognition. Quantum cognition is the overlap of quantum physics, psychology, sociology, and neuroscience. This presentation provides a summary of the basic ideas in this field, as well as an overlook on two scientific papers that explore multiple experiments demonstrating the advantages of quantum mechanics probability principles over those of classical mechanics in the study of human behavior and decision making in the presence of ambiguity. The conclusion of this study is that in the presence of ambiguity, humans make decisions that would not be considered "rational" in a classical sense. Despite this, we can define patterns through quantum physics probabilistic laws and make significantly accurate predictions. This project, by no means, claims there to be any quantum mechanics presence in the brain; rather, it introduces quantum physics as a tool that has been found helpful over the past few decades in explaining human behavior. Quantum cognition changes the common view of quantum physics as an abstract field and applies its principles to our daily behaviors, making an amazing example of abstruse ideas having mundane applications.

Kimiasadat Mirlohi
Loyola University New Orleans

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