Title: Causality in Qbism

Speakers: Jacques Pienaar

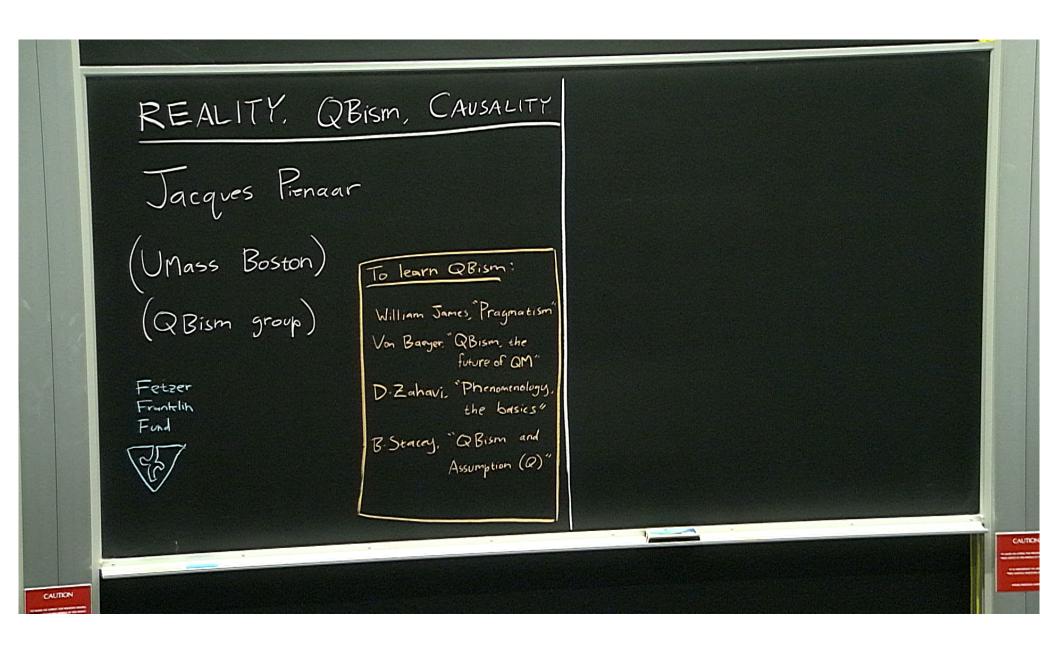
Collection: Indefinite Causal Structure

Date: December 13, 2019 - 9:00 AM

URL: http://pirsa.org/19120033

Abstract: The approach to quantum theory known as QBism notoriously asserts that the quantum state is not even a partial representation of reality, but instead quantifies an agent's subjective degrees of belief about future experiences. Despite its counter-intuitive premise, QBists argue that this interpretation has the potential to illuminate and demystify certain aspects of quantum theory. In this talk I will discuss how `causality' might be interpreted by a QBist, and whether doing so might help us understand the bizarre hypothetical phenomenon of `indefinite causality'.

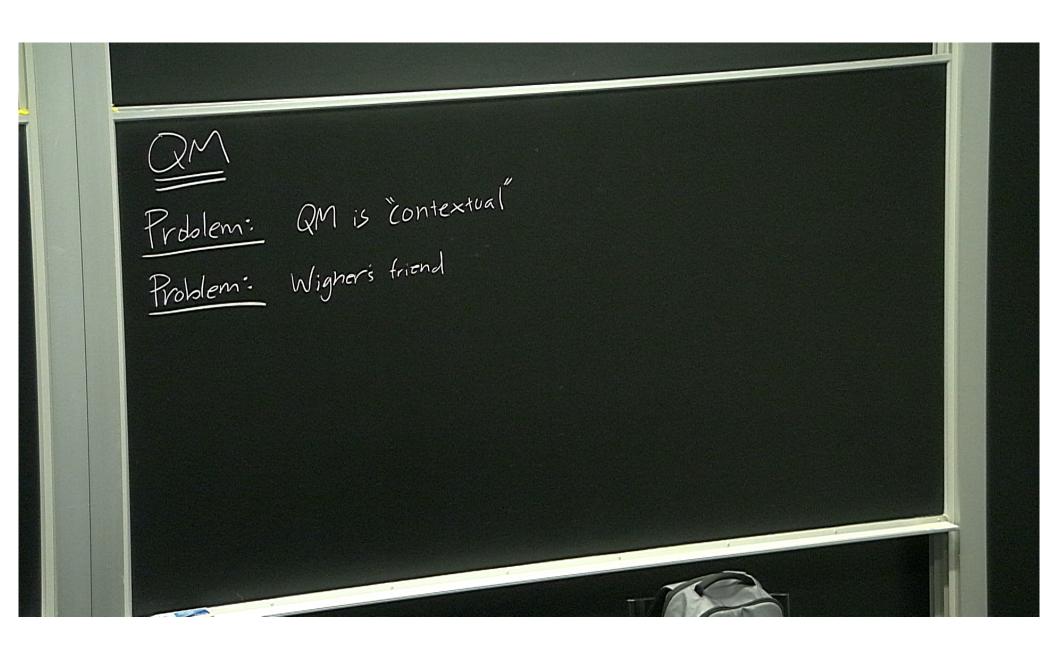
Pirsa: 19120033 Page 1/6



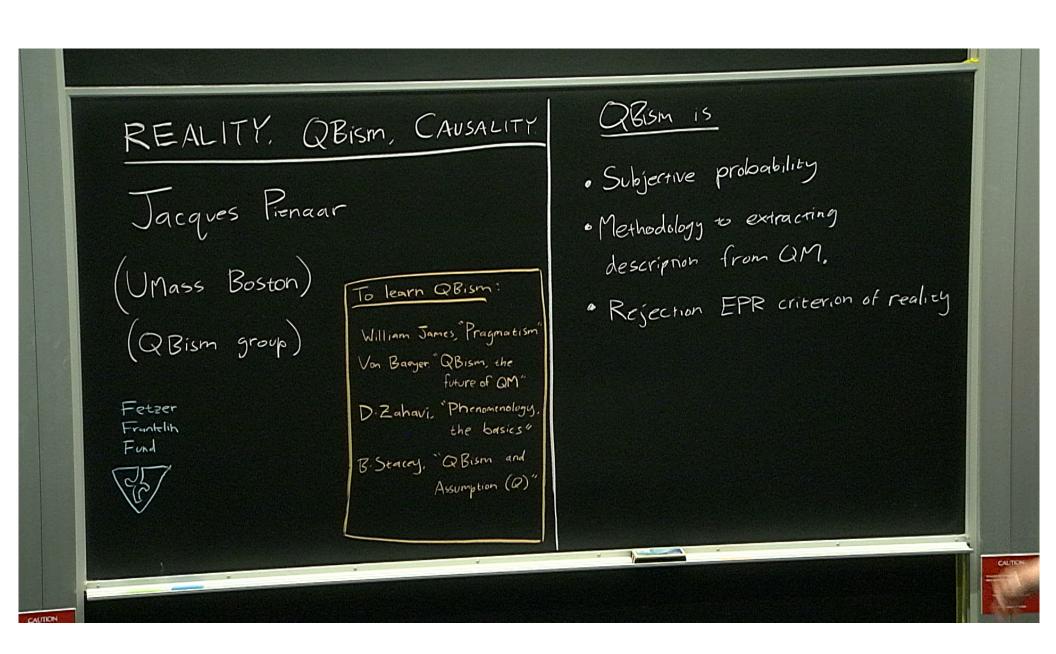
Pirsa: 19120033 Page 2/6

The Scientific process Theories have 2 jobs (1) Separate irrelevant context 1. Predictive operational from "relevant variables" => Scientific obs. (Z) Factor out the observer 2. Explanatory/descriptive (6bservarion) = (observ. frame) How do we get to the description of + (Object) "reality" (1) Perception is "raw material" of science. = "Scientific reality"

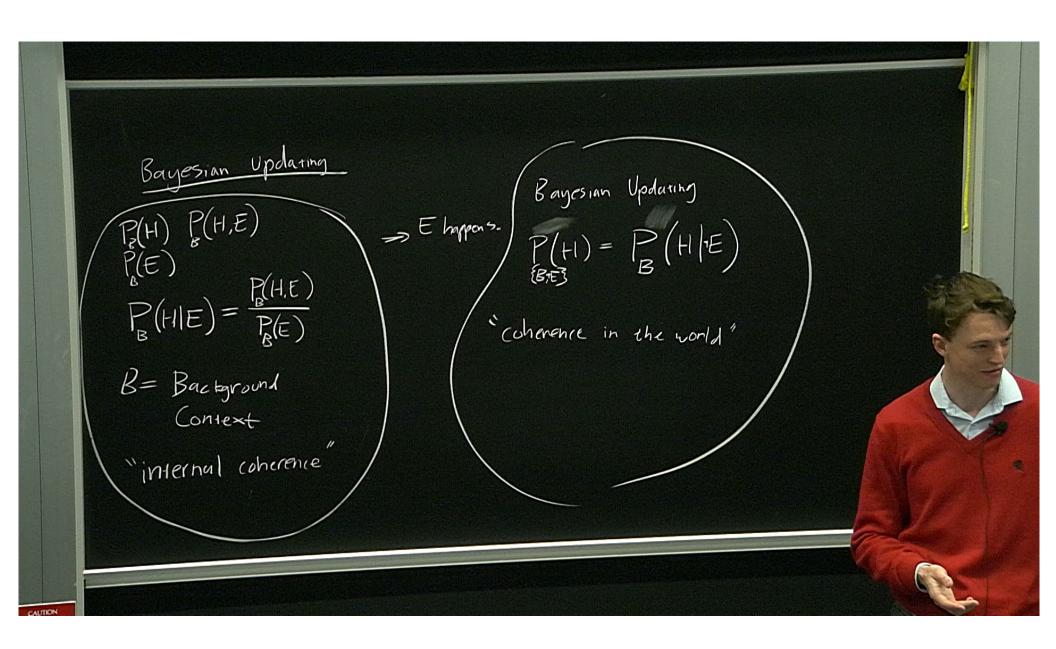
Pirsa: 19120033 Page 3/6



Pirsa: 19120033



Pirsa: 19120033



Pirsa: 19120033