

Wes Scholars On BioCultural Theory

A biologist, a philosopher, and a sociologist opened the fall semester's FGSS programming. On Friday, September 18, three members of the faculty held a lively discussion on the entanglements of culture and biology. The event, organized with the Science in Society program, was titled "Biology and Cultural Theory," and featured Professor Sonia Sultan (Biology/Environmental Studies), Professor Joe Rouse (Science in Society/Philosophy), and Professor Victoria Pitts-Taylor (Feminism, Gender, and Sexuality Studies/Science in Society/Sociology). Professor of Psychology Jill Morawski moderated the event, noting how the works of this diverse set of scholars reconfigure our perceptions of the relationship between organism and environment.

Received scientific conceptions of the organism see it as an entity that is internally defined by a genetic code and merely reacts to its environmental conditions. In contrast, Sultan's talk described the ability of environmental conditions to directly effect an organism's gene expression, as well as the ability of an organism to influence its own environment. Sultan asked the question, "how does this reciprocal relationship change the way we study development?" In her latest book entitled *Organism & Environment: Ecological Development, Niche Construction, and Adaptation*, Sultan urges her peers to reconsider previously established norms in the face of evidence of biology's dynamic relation with its environment.

Rouse followed Sultan by discussing his latest work, *Articulating the World: Conceptual Understanding and the Scientific Image*. Drawing from the naturalist philosophical tradition, Rouse argues that language is a form of niche construction, meaning that we shape our environment with our own linguistics. The idea that language shapes both the human world and scientific understandings of it demands a rethinking of the epistemic claims made by science. Rouse argues that once we can understand our own intellectual capacities as a product of niche construction, we can see that those capacities are vulnerable and risky, existing within their specific historical contexts.

Pitts-Taylor's talk situated new scientific views of biology alongside contemporary feminist and cultural theories of matter as "becoming." She discussed her forthcoming book *The Brain's Body: Neuroscience & Corporeal Politics*, which addresses the relationship between culture and neurobiology. Pitts-Taylor argues for a critical materialist approach to the brain, one that pays attention to how social inequalities not only influence neurobiology, but also shape neuroscientific knowledge. She argues that if the brain is a plastic and social entity, capable of change and transformation, neurobiology itself must be seen as political.

The panel ended with a lively question and answer session.