

# CGD SEMINAR



**DATE:** Tuesday 8 October, 2019

**TIME:** 11 am – 12 pm

**LOCATION:** NCAR, Table Mesa Drive  
Main Seminar Room

**TITLE:** Local Epistemologies, Representational  
Perspectivism and Climate Model Pluralism

**SPEAKER:** Monica Morrison, Indiana University at  
Bloomington

Climate modeling, like many areas of scientific practice, is composed of local research communities with distinct histories, whose practices are governed by their own local epistemologies. A local epistemology is constituted by the interests, scientific questions, and methodologies adopted by a research community. In the practice of modeling, the development of a community's model is heavily influenced by the constituent features of the community's epistemology. Given that different local communities have variations in the types of interests and scientific problems they investigate, and differences in their other epistemic commitments, this will ultimately result in a distinct perspective being taken by each local community on the complex system. For models this means that each model, which is the product of a local community, will partition the causal space according to their specified interests and related representational priorities—each model will thus pick out slightly different features of the complex causal system and represent them in slightly different ways consistent with their epistemology. Given this picture of modeling practice there are many models that are perspectival in nature, but no model that is a complete representation of the complex system. The perspectival nature of models might seem problematic because only certain features of the causal space are being represented and surveyed in a given model. However, in climate modeling practice there exist a plurality of communities developing unique models that provide distinct representational perspectives on the complex system. This plurality of models can be beneficial in practice if the diverse models stand in certain relationships to one another. In this talk I demonstrate that the pluralism of representational perspectives in climate models, which stems from the diversity of local epistemologies, is best understood in terms of negative-complementary, and that the plurality of models also make up a “universality class” of models that is sufficient for providing scientific explanations in climate science.

**Live webcast:** <http://ucarconnect.ucar.edu/live>

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