



Lecture: Wednesday,
March 18, 2026, 1:00pm
(Pre-Lecture Reception, 12:30pm)



Siwen Yang, “Scientific Knowledge as a Form of Niche Construction and Dewey’s Theory of Inquiry”

Niche construction theory (NCT) emphasizes organisms’ active modification of their environments and challenges the Modern Synthesis’s unidirectional adaptation by bidirectional co-construction between organisms and environments. As an effective framework for reinterpreting scientific knowledge, the philosophical implications of NCT can be clarified through Dewey’s theory of inquiry: niche construction originates from uncertain situations, and scientific knowledge emerges as a form of judgement produced through inquiry. Through the application of scientific knowledge, humans transform uncertain, high-selection-pressure environments into more determinate, low-selection-pressure ones. Scientific knowledge should therefore be understood as a form of niche construction, mediating the co-construction of organisms and environments.

Siwen Yang is a PhD candidate in philosophy of science at the University of Chinese Academy of Social Sciences and a visiting scholar at the Center for Dewey Studies. His research focuses on philosophy of science in practice, pragmatism, and NCT.

Center for Dewey Studies • Morris Library Basement, Room 0044

Center for Dewey Studies Lunchtime Talks

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