

Philosophisches Kolloquium SoSe 23

Dr. Sabrina Coninx (VU Amsterdam)

Titel: „The Dark Side of Niche Construction“

Abstract: Niche construction denotes the alteration, destruction, or creation of environmental features through the activities of an organism, modifying the relation between organism and environment. The concept of niche construction found application in various fields of research: evolutionary biology, enculturation, ontogenetic development, and local organism- environment coordination. This is because it provides a useful tool emphasizing different aspects of the dynamic interplay between organisms and their actively constructed environment. Traditionally, niche construction is considered a positive mechanism in the complementarity of organism and environment.

In contrast, this paper sheds light on the dark side of niche construction, that is, the different manners in which organisms may modify environmental features that are in some way or another harmful to them. First, the paper introduces a paradigmatic distinction of four kinds of niche construction as commonly addressed in recent literature, using more or less extended spatio-temporal scales as the distinguishing feature. Second, the paper elaborates on the concept of negative niche construction, providing normative criteria of (mal)adaptation that are suitable for the evaluation of environmental alterations, given the chosen spatio- temporal scale. Of particular interest are inter-scale conflicts: those cases of environmental constructions which appear adaptive concerning one spatio-temporal scale but maladaptive concerning another. Third, the paper distinguishes the concept of niche construction as a valuable instrument to better understand central aspects of modern medicine and the entangled contribution of evolutionary, socio-cultural, personal, and situational aspects to different health issues, using chronic pain as an illustrative case study.