BOOK REVIEW

Carlo Brentari. Jakob von Uexküll: The Discovery of the Umwelt between Biosemiotics and Theoretical Biology. Translation C a triona Graciet. Springer: Biosemiotics 9. xi+249. ISBN 978-94-017-9687-3. ISBN 978-94-017-9688-0 (e-book). DOI 10.1007/978-94-017-9688-0.

Brentari is a philosopher whose book originally appeared in 2011 in Italian. This is a 2015 English translation. The book provides a solid, detailed analysis of the work of the Estonian-German biologist Jakob von Uexküll (1864-1944), who is one of the important figures shaping the interdisciplinary work in theoretical and empirical biology that is termed "biosemiotics."

This book is No. 9 in the Springer Biosemiotics series; some volumes are already published with a number forthcoming. Indeed, this series is an extraordinarily interesting one with strong interdisciplinary appeal, but these books, including this volume, are, unfortunately, likely to remain largely unknown. The series is poorly advertised and volumes are pricey (\$149.99, for this volume). Springer graciously will sell you chapters (with separate DOI numbers) for a mere \$30 each. There is some overlap in the content of chapters so perhaps the idea is that one could purchase and read only a few, but Springer does not make this clear. Unfortunately, these days most academic publishing houses seem to focus primarily on generating revenue, and they often impede—rather than promote—the dissemination of good scholarship.

The opening chapter is an introduction by Morten Tønnessen, a contemporary Danish biosemiotician who provides a helpful, succinct introduction to Uexküll's life and work. He also discusses Brentari's book in the context of international interest in and publications about Uexküll. He concisely summarizes the periods of Uexküll's research and outlines how Brentari treats them. He notes Brentari's extended discussion of Uexküll's influence on a long list of philosophers and scientists. Tønnessen also has a section discussing Uexküll's influence upon Norwegian ecophilosophy, and there is, finally, a section discussing some of his own work aimed at updating certain ideas about the Umwelt.

Brentari's second chapter provides a more detailed overview of Uexküll's life and work. There is enough biographical detail to portray vividly Uexküll's interesting life negotiating the tumultuous political and cultural context of Europe in the first half of the twentieth century. There is also an account of Uexküll's scientific education (including the influence of German biology and his reaction against Darwinism), and his varied work as both an experimental and a theoretical biologist. Particularly interesting is Brentari's discussion of the links to the thought of Kant.

The third chapter treats the periods of Uexküll's research and writing: early he focused on empirical work on the physiology of marine animals but later combines his physiological research with theoretical writing. Late in his life, Uexküll was primarily a theoretical biologist and in this period worked out his account of the Umwelt ideas, his account of animal subjectivity which essentially extends to non-human subjects the transcendental analysis of Kant's first critique. Uexküll was a vitalist but, as Bretari construes it, one who treads very lightly insofar as he did not emphasize supermechanistic qualities. Brentari situates Uexküll's changing

interests and research in the context of the evolving debate between the vitalists and mechanists both before and during Uexküll's life.

Brentari's next four chapters look in depth at Uexküll's basic biological ideas as they develop. First is an analysis of Uexküll's early account of the way each animal species sets up a subjective world composed of isolated and synthesized stimuli. Next, Brentari focuses on Uexküll's effort to show how different kinds of signs constitute the Umwelt or species-specific environment. Brentari works to show how Uexküll developed a Kantian-inspired account of how living things have "an interpretative relation" (111) with their environment, but at the same time Uexküll rejects Darwin. Uexküll has his own brand of vitalism which he combines with teleology. Uexküll's perspective is one that grew and this is reflected in his publications..

One of Brentari's most interesting middle chapters is "Environment and Meaning" which is a careful analysis of Uexküll's best known book, A Foray into the Worlds of Animals and Humans and his later, more theoretical A Theory of Meaning. The first of these was intended as a popular work organized to educate and it draws together some ideas from Uexküll's earlier work. Brentari discusses Uexküll's changing attitude toward Darwin, his opposition to behaviorist reading of animal actions, his interest in connections between human beings and other animals (also a Polanyi interest), and his collaboration with Konrad Lorenz. He explains Uexküll's claim that each species organizes its environment in terms of a different spatial and temporal network. Brentari is often incisively critical of Uexküll's views; he suggests, for example, that Uexküll's Kantianism led him to a kind of species-specific relativism, but that Uexküll was painfully aware of this. Uexküll's later writing was more and more theoretical and this included not only his A Theory of Meaning in which nature is a system of signifiers, but also his final dialogues (modeled on Plato) which are overtly philosophical reflections on biology.

Brentari's long seventh chapter is a "reasoned overview"(175) of the influence of Uexküll on later thinkers and he here draws out the main lines on which Uexküll's work has been interpreted. Bretari has clearly digested much literature to provide this most interesting account of the range and variety of Uexküll's influence on Scheler, Plessner, Gehlen, Cassirer, Langer, Heidegger, Lacan, Merleau-Ponty, Deleuze, Lorenz, Sebeok and contemporary biosemiotics. This chapter can serve scholars interested in particular figures as a starting point. The concluding eighth chapter is a useful summary of the major ideas about nature and life which Uexküll develops over the course of his own life. The focus here is on Uexküll's discussion of the Umwelt and his perspective as both a Kantian and a semiotic account.

Phil Mullins mullins@missouriwestern.edu