

Words Are Essential, but Underexamined, Research Tools for Microbes and Microbiomes

Szymanski, Erika (2021.0)

ABSTRACT ORIGINAL

Language constitutes an essential set of scientific construction tools, not only for communicating knowledge, but for conceptualizing the world. Metaphors in particular, as conventions that guide and reproduce analogical reasoning, merit attention that they largely do not receive. My research addresses this deficit by examining how metaphors for handling microbes shape possibilities for working with yeast and bacteria in synthetic biology, microbiome research, and other fields that reconfigure what microbes can be. Though poised to reexamine assumptions, these fields routinely rest on metaphors and other language tools that quietly embed ways of thinking that may work against wider aims—for example, imagining bacteria as imperfect machines that should therefore be rendered increasingly passive and controllable. Researchers, therefore, need to examine how language tools structure their observations and expectations so that the tools they choose are appropriate for the work they want to do. © 2021 Szymanski.