

James Nguyen

Mathematics is not the only language in the book of nature

Abstract:

How does mathematics apply to something non-mathematical? We distinguish between a *general application problem* and a *special application problem*. A critical examination of the answer that structural mapping accounts offer to the former problem leads us to identify a lacuna in these accounts: they have to presuppose that target systems are structured and yet leave this presupposition unexplained. We propose to fill this gap with an account that attributes structures to targets through *structure generating descriptions*. These descriptions are *physical* descriptions and so there is no such thing as a solely mathematical account of a target system.