

Steering away from multiple realization

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Adaptive Behavior

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Abstract

Mario Villalobos and Pablo Razeto-Barry argue that enactivists should understand living beings not as autopoietic systems, but as autopoietic bodies. In doing so, they surrender the principle of multiple realizability of the spatial location of living beings. By way of counterexample, I argue that more motivation is required before this principle is surrendered.

Keywords

Multiple realizability, enactivism, functionalism, autopoiesis, brain in a vat

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Enactivists charting new cognitive waters will likely, and understandably, not dwell on the shape of shores just left behind. Yet, navigating forward sometimes requires a backwards glance to adjust one's course. Mario Villalobos and Pablo Razeto-Barry (2019) propose such a course change: they advocate a new point of departure for understanding what makes something a living being. Central in their proposal is the idea of a living being as an autopoietic (or self-sustaining) *body*, not as an autopoietic *system*. The buccaneers in this story are identified by the authors as enactivists who take a so-called extended approach to autopoiesis: who look at living beings as systems which not only include bodies but also environmental elements and processes. However, it is not clear what treasure is secured by understanding living beings as bodies.

Villalobos and Razeto-Barry's main concern seems to be a correct exegesis of Humberto Maturana and Francisco Varela's initial theory of autopoiesis. Perhaps the authors are right in interpreting that autopoietic theory "did not (and does not) intend an extended conception of living beings" (Villalobos & Razeto-Barry, 2019, p. 5). But to defend this interpretation, they need to jettison the idea that the theory of autopoiesis allows for the multiple realization of living beings in terms of their spatial constitution: that is, that autopoiesis is neutral with respect to the location of a living being's concrete parts.

Advocates of functionalism in the philosophy of mind have argued that a theory which allows its

theoretical objects to be realized in many distinct physical kinds, will be more general and robust than a theory which does not. Applying this principle to autopoietic theory, this would mean the ability to adequately capture what makes a living being without being partial to its distribution in physical space. As Villalobos and Razeto-Barry (2019, p. 11, note 4) admit, problematic border cases that can be dealt with by a theory of autopoietic systems, but not by one of autopoietic bodies, might exist. If this is true, we have reasons to question the viability of the latter.

One such border case is inspired by Diego Cosmelli and Evan Thompson (2010), who, in an enactivist reconsideration of the classic brain-in-a-vat thought experiment, argue that "any vat capable of performing the necessary functions will have to be a surrogate body that both regulates and is regulated by the nervous system" (p. 378). But we may imagine the brain being kept alive in one part of this surrogate body, while, through a wireless connection of some sort, being connected to the sensorimotor part of the body, which is located elsewhere: as long as brain and body are "reciprocally

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coupled and mutually regulating” (p. 369), we may speak of “a whole living system” (p. 379).

On Villalobos and Razeto-Barry’s account, a densely coupled brain–body system—with the brain residing outside of the sensorimotor body—would not constitute a living being as it exhibits no “proximity of its components” (p. 6). It seems to me false to say that the brain–body system is not alive, when it would act, communicate, and, presumably, experience like us. This case, however, poses no problem for a theory of living beings as autopoietic systems.

My goal is not to let this example stand as a definitive counter to Villalobos and Razeto-Barry’s course correction. As the authors admit, their aim is not to provide a fleshed out theory of what constitutes a living body. However, the example shows that more motivation is needed before we should order the principle of multiple realization to walk the plank.

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About the Author



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