

“I can” vs. “I want”: What’s missing from Gallagher’s picture of non-reductive cognitive science

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We support the development of non-reductive cognitive science and the naturalization of phenomenology for this purpose, and we agree that the “relational turn” that Gallagher defends in this paper is a necessary step in this direction. However, we believe that some crucial aspects of his relational concept of nature need clarification. In particular, Gallagher does not say whether or how teleology, affect, and other value-related properties of life and mind can be naturalized within this framework. Here we wish to indicate that this is a critical lacuna in Gallagher’s paper by briefly arguing the following: (1) given the phenomenological standards recognized by Gallagher himself, his commitment to a naturalized phenomenology should entail a commitment to a naturalized concept of value; (2) the kind of “relational nature” described by Gallagher in this paper is insufficient for this purpose.

In his paper, Gallagher uses concepts from ecological psychology, pragmatism, and enactive theory to argue that life and mind are constituted by irreducible “relational structures.” As an example, he points to the ecological concept of “affordance”: an affordance is a relational structure that constitutes a possible action for an animal within its environment. Taken together, these relations make up a unique perspective on the world—“I can.” However, the relational structures that constitute “I can” do not, by themselves, provide for any kind of motivation that would instigate and direct an actual course of action. Possible actions may be uniquely defined for an agent but they remain impersonal abstractions unless they are animated by some kind of interest or concern—“I want.” Thus while the relationally constituted perspective of “I can” is an important starting point for non-reductive cognitive science, it remains incomplete without a naturalized account of the kinds of value-related properties that motivate cognitive behavior.

The importance of such value-related properties for a complete theory of mind is well known to Gallagher, as it has been argued by all of the perspectives with which he is most closely aligned—phenomenology (Husserl 2001; Merleau-Ponty 2002), pragmatism (Dewey 1958), ecological psychology (Gibson 1979), and enactive theory (Di Paolo 2009; Colombetti 2015)—as well as by Gallagher himself (Bower and Gallagher 2013). These perspectives are not perfectly aligned on the subject of value, of course. Here we limit ourselves to a few remarks about a critical point on which they all agree: the constitutive role of value in perceptual experience.

As argued by Husserl, even the perception of a familiar object is essentially a kind of motivated activity that can be characterized, albeit in subtle ways, by feelings of attraction, tension, striving, and satisfaction (2001; Bower and Gallagher 2013, 202). Dewey observed that our experience of objects is emotionally charged, such that emotions can be distinguished from objects only on reflection (Colombetti 2015, 107). In Merleau-Ponty’s phenomenology, the normative character of perceptual activity is expressed by his concept of “optimal grip” (2002, 352). For this view, perception is not an all-or-nothing affair; rather it is a process of continual adjustments directed by the effort to improve our perceptual “grasp” of the current situation. In ecological psychology, although the concept of “affordance” is often defined solely in terms of possibility—“I can”—Gibson clearly intended for it to include value: something is always afforded “either for good or ill” (1979, 127). In fact, Gibson’s use of “affordance” deliberately echoes the German term

Afforderungscharakter (“invitation character”) coined by Lewin and other Gestalt theorists to describe the valence of perceived objects (ibid. 138). An affordance is perceived as an invitation to act or as possible but uninviting—not all affordances are perceived as equally “affordable” (Bower and Gallagher 2013, 122).

Many more statements in favor of the value-laden character of perception could be provided, but given what Gallagher himself has written on the subject, there should be no need to belabor the point. For perceptual experience, the subjectivity of “I can” is not enough:

“Schemata of sensory-motor contingencies give an agent the *how* of perception, a tacit knowledge of potential sensory-motor engagements, without giving its *why*, the latent vectors or valences that give any potential sensory-motor engagement a degree of desirability, nudging the agent in one direction rather than another” (ibid., 111).

But if the relational features of “I can” fail to meet Gallagher’s own phenomenological standards, why does his proposal to rethink nature focus only on the “modal attitude of the ‘I can’” (11)? How is our experience of value supposed to be naturalized in this framework?

These are our main questions for Gallagher. We do not presume to answer for him, but the way in which he sets up the contrast between the “classic” Cartesian concept of nature and the relational concept championed by Bohr and others suggests that he sees relation, not value, as the crux of the issue: “This relational nature, irreducible to either brain or object, is the nature that science needs to explain” (7).

Although we agree that an adequate science of mind must preserve its relational nature, we believe that value, not relation, is the main challenge for naturalized phenomenology and non-reductive cognitive science. In fact, within enactive theory—a thoroughly relational approach—there is an ongoing debate between those who assert that teleology is intrinsic to life and mind (Di Paolo 2009) and those who hold to a more stringent form of naturalism that excludes teleology (De Jesus 2016). Our view is that while a relational science of mind that excludes value may not be reductive in the Cartesian sense of “partes-extra-partes” it *is* reductive in the sense that it eliminates something essential from the phenomena it purports to explain.

Accordingly, in the remainder of this essay, we wish to clarify that while there is ample support for a relational concept of nature, such a concept does not necessarily support the kinds of value-related properties we have just described in the context of perceptual experience.

First, we wish to contest the implication that modern science has tended to assume a Cartesian concept of nature. Well before Einstein, relational views of physics kept the Cartesian position in check and, over time, they seem to have gained the upper hand (Smolin 2008). The general public may still believe that physics describes fundamental reality as a swarm of particles, but today physicists are more inclined to say that “fields are the stuff that everything else is made of” (Carroll 2016, 164). And while the mathematical representation of a field can be interpreted in “classic,” Cartesian terms, it is safe to say that the non-local character of a field lends itself more readily to thinking about nature in relational, even holistic, terms. If particles and forces are understood as emerging from interacting fields then it seems that they are *always already* relational entities, however we may choose to model their behavior. In fact, some prominent

physicists have argued that fundamental physics in the last century has tended toward a relational view of nature that is incompatible with classic reductionism: “What we are seeing is a transformation of worldview in which the objective of understanding nature by breaking it down into ever smaller parts is supplanted by the objective of understanding how nature organizes itself” (Laughlin 2006, 76).

How might this relational view of nature be adapted to support a non-reductive cognitive science? As the history of Gestalt psychology shows, the field concept of physics is well suited to a holistic approach to the science of mind (e.g. Lewin 1952; Ash 1998). On the other hand, this very same history also shows the limitations of the field concept with respect to our experience of value. Indeed, Köhler clearly saw that the physical concept was insufficient: like our experience of value, the field concept of physics has a dynamic, relational character that includes forces of attraction and/or repulsion, but it cannot account for the way in which “the demand of a value object is felt to *follow from* the nature of the object” (1971, 373). In short, the history of Gestalt psychology is an important lesson in what a thoroughly relational approach to nature can and cannot do for a non-reductive science of mind.

Of course, relational approaches to a science of mind did not end with Gestalt psychology. The relational torch was carried by Gibson and others, and now, with the ascendance of enactive theory and a burgeoning variety of research programs tied to nonlinear dynamical systems (e.g. Kelso 1995; Spivey 2007), it seems to be burning brighter than ever. For those of us who are already on board with this “relational program,” the main question is not whether a relational science of mind is possible. It has long existed, and in multiple forms. The more pressing questions have to do with (1) the kinds of relation that we experience, (2) the kinds of relation modeled by science (e.g. with nonlinear dynamical systems), and (3) whether the latter are adequate for the naturalization of the former. As for the first question, we believe that value is a fundamental and intrinsic part of our experience of relation, and it seems that Gallagher agrees with us. As for the second and third, the recent rejuvenation of relational approaches in cognitive science does not seem to have brought us any closer to a naturalized account of our experience of value. Relational science is still value-free science; indeed, very few scientists would like it to be otherwise.

Thus, we agree with Gallagher that the question of naturalized phenomenology turns on what is meant by nature, but we disagree about what is most in need of naturalization and, as a result, we may also disagree about how to rethink nature in support of naturalized phenomenology. Perhaps this divergence has something to do with the fact that, until now, the phenomenological tradition has not ventured much into philosophy of nature. The tradition was founded on Brentano’s view that the sciences of mind and nature must be wholly distinct because nothing in nature could be relationally constituted in the manner of mind. Meanwhile, philosophers like Bergson, James, Whitehead, and Peirce rejected this assumption and undertook radical reconstructions of our concept of nature in order to accommodate mind as a natural process. This kind of philosophy of nature has long since gone out of style, but if Gallagher and others are serious about naturalized phenomenology, might it be worth another look?

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