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A well-trodden path: From phenomenology to enactivism

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Enactive approaches to understanding cognition, broadly conceived, draw from a variety of philosophical resources. I say 'approaches' in the plural, because there are several versions of enactivism. They all share an emphasis on the role of the body in cognition and the intertwinement of perception and action; they all contribute to a critique of classic cognitivism, representationalism, and internalist or neurocentric theories. What distinguishes different versions of enactivism are not major disagreements among its proponents, but first, some differences in where they place further emphasis, and second, the philosophical path they have followed to get to where they are. Varela, Thompson and Rosch's *The Embodied Mind* (1991), typically considered the seminal text initiating the enactivist approach, makes the theory of autopoiesis (biological self-organization) central; O'Regan and Noë (2001) emphasize sensory-motor contingencies; a further concentration of enactivist theory associated with the work of Di Paolo and De Jaegher (2007) focuses on sense-making; Hutto and Myin (2017) present a strong front of anti-representationalism. Despite different foci, there is a general consensus that all of these ideas are part of the enactivist view. There are also various connections made in a number of these authors to Buddhism, ecological psychology (especially the idea of affordances), distributed cognition, and dynamical systems theory; and in some respect these various intersections result from the different paths that have led to enactivism.

Philosophically there are strong connections (theoretical overlaps and parallels more so than historical connections) between enactivism and classic pragmatism, especially the work of Peirce and Dewey. Although Varela, Thompson and Rosch (1991) mentioned pragmatism in passing, they were looking specifically to its then contemporary expression in, e.g., Richard Rorty and Joseph Margolis. More recently, philosophers working to advance this enactivist view have started to see the connections with classic pragmatism and to build on them. One of the chapters in my book, *Enactivist Interventions* (2017) traces these connections.

I think the influence of phenomenological philosophy on enactivism is more apparent, and it clearly comes through in the work of Varela and Thompson. Their view of phenomenology, however, even in 1991, is not uncritical. Influenced by Hubert Dreyfus' reading of Husserl Varela et al., in *The Embodied Mind,* take Husserl to be too theoretical; Merleau-Ponty fares better. But in their subsequent work they make good use of some of Husserl's analyses, especially his work on the intrinsic temporality of experience (Varela 1996; 1999; Thompson 2007). I also think it is safe to say that other enactivists, like Noë (2004) and Hutto and Myin (2013), who are more familiar with analytic philosophy of mind, come to, or perhaps just flirt with phenomenology through their enactivism. That is, they discover the relevance of someone like Merleau-Ponty as they develop their own enactivist conceptions. My own journey was in the opposite direction; I came to enactivism through my work in phenomenology. To be more precise, I should say that I found enactivist ideas already operative in phenomenology, and then discovered the link to Varela and the enactivists. So my own view confirms what Varela, Thompson and Rosch say in the introduction to *The Embodied Mind*: 'We like to consider our journey in this book as a modern continuation of a program of research founded over a generation ago by the French philosopher, Maurice Merleau-Ponty' (p. xv).

How one understands the connection between phenomenology and enactivism may depend on the direction of one's journey. Especially if one begins with phenomenology, it is not clear that every phenomenologist will follow a path to enactivism. There's a huge roadblock that one must get around, and phenomenologists are not all inclined to take what they might consider not just a detour, but what a French phenomenologist might call a *cul-de-sac*, or dead end. Let me begin by trying to map out what I think are the enactivist elements in phenomenology, and then come back to discuss this roadblock, and the way forward.

Merleau-Ponty, of course, is the philosopher of the body *par excellence*. It is very much the case, however, that in developing his embodied account of perception he draws directly on Husserl. Merleau-Ponty was influenced by his reading of Husserl's unpublished manuscripts at the Louvain archives, especially what was later published as the second volume of *Ideas* (1989). In Husserl, we find the clear distinction between the lived body (*Leib*) and the objective body (*Körper*), important for both Merleau-Ponty and the enactivists. Husserl also provides detailed phenomenological analyses of proprioceptive and kinaesthetic experience. Merleau-Ponty develops these ideas further He was also influenced, however, by Aron Gurwitsch and Gestalt psychology, as well as by his reading of the neurological literature, especially the work of Henry Head, Paul Schilder, and Kurt Goldstein. All of this goes beyond Husserl, who had developed a purely phenomenological account of embodied cognition.

This is most clearly seen in Husserl's concept of the 'I can', which is part of a phenomenological account of enactive perception. I perceive the world in terms of my action possibilities, that is, in terms of what *I can* do.

> I perceive *with* my hands, touching kinesthetically, seeing with my eyes, etc., and can so perceive at any time, while these kinestheses of the organs proceed in the *I am doing* and are subject to my *I can*; furthermore, putting these kinestheses into play, I can push, shove, etc., and thereby directly, and then indirectly, act corporeally (*leiblich*). (Husserl 1970, 97).

This is the implicit and practical *I can* of bodily intentionality and movement (Husserl 1989, 266-277).

This enactive 'I can' is also expressed by Heidegger in his concept of *Zuhandenheit* or the readiness-to-hand aspect of our existential relation to the world – that is, the idea that our primary relation to the world is not the Cartesian intellectualist or theoretical attitude, but the pragmatic attitude of seeing things in terms of our projects. He provides a well-known example of the hammer:

> The less we just stare at the hammer-Thing, and the more we seize hold of it and use it, the more primordial does our relationship to it become, and the more unveiledly is it encountered as that which it is – as equipment. The hammering itself uncovers the specific 'manipulability' ['*Handlichkeit*'] of the hammer. The kind of Being which equipment possesses – in which it manifests itself in its own right – we call "readiness-to- hand" [*Zuhandenheit*]. (1962, 98).

These ideas are taken up in Merleau-Ponty's analysis and are given a much more explicitly embodied explanation in which he integrates phenomenology, psychology and neuroscience. The 'I can' is an original form of intentionality which, following Husserl, he calls 'operative' intentionality, a form of bodily or motor intentionality (2012, lxxxii) which involves a fine tuning of what Henry Head had called the 'body schema'. Merleau-Ponty's conception of body schema closely follows Head and is close to how we understand this concept today, as involving motor capacities, abilities, and habits that both enable and constrain movement and the maintenance of posture. In contrast to a more explicit awareness of one's body, termed 'body image', the body schema operates, when the intentional object of perception is something other than one's own body (Gallagher 2005). According to Merleau-Ponty, 'Consciousness is originarily not an "I think that," but rather an "I can" [so that…] to move one's body is to aim at the things through it, or to allow one's body to respond to their solicitation, which is exerted upon the body without any representation' (2012, 139-140).

We can see here, perhaps what James Gibson saw when he read Merleau-Ponty's *Phenomenology of Perception*,[1] the notion of affordance as a relational coupling of body and environment. For Gibson, an affordance is relative to the agent's body. If I have a certain amount of strength and have honed a particular set of skills by attuning my body schema to a specific set of sensory-motor contingencies, the cliff in front of me affords climbing. That affordance, as an immediate solicitation, disappears, however, if I am bound to a wheelchair. Gibson's concept of affordance grabs everything that is right about these particular pieces of

[1] Anthony Chemero (private correspondence) notes that Gibson distributed copies of Merleau-Ponty's *Phenomenology of Perception* to his students. See Chemero (2009); Käufer & Chemero (2015)

phenomenology in Husserl, Heidegger and Merleau-Ponty.

If questions about embodied perception, action and cognition form something like a jigsaw puzzle in need of solution, a lot of the ideas found in phenomenology easily click together into an enactivist solution. The notion of body schema, for example, nicely fits with the concept of sensory-motor contingencies, which motivates Noë's opening quotation of Merleau-Ponty: 'A theory of the body is already a theory of perception' (2004, 1). For Merleau-Ponty, however, embodiment is more than just this body-schematic intentionality; it also opens onto the intersubjective realm, deepens into a rich affective life, and transcends itself in gesture and language. Enactivists have developed all of these themes, building on Merleau-Ponty's notion of intercorporeity to develop an approach to social cognition focused on dynamical, embodied interaction (De Jaegher, Di Paolo & Gallagher 2010; Gallagher 2001); emphasizing the role of affect on perception, cognition and intersubjective relations (Colombetti 2014; Gallagher and Bower 2014); and showing how gesture and linguistic expression extend sensory-motor agency into social practices, institutions and communities (Di Paolo, Cuffari & De Jaegher 2018; Gallagher 2013).

Accordingly, my point is that although recent work in enactivism goes beyond what we find in the classic phenomenologists, one can find some of the original concepts of enactivism already under way in the work of the phenomenologists. This question of how enactivism goes beyond phenomenology, however, runs us right into the roadblock I mentioned above.

The roadblock concerns the way that enactivism wants to mix phenomenology and science. Classic phenomenology, especially in the work of Husserl, is a transcendental enterprise, and by definition, the transcendental does not mix well with the empirical. A natural scientific explanation accounts for cognition by invoking causality and empirical facts. A transcendental account, in contrast, attempts to say what makes it possible for the mind to be able to invoke something like causality in the first place. And yet enactivists who follow Varela want to do *neuro*phenomenology. The scope of phenomenology, however, does not include neuroscientific causal explanations. Phenomenology, to remain transcendental, brackets any naturalistic explanation and in this sense, phenomenology cannot be naturalized. Hence, phenomenologists who want to remain faithful to Husserl's transcendental project reject the very idea of naturalized enactivist phenomenology. For Husserl, phenomenology defined the limits of what science, or naturalism broadly construed, could tell us:

> Naturalism is a phenomenon consequent upon the discovery of nature … considered as a unity of spatiotemporal being subject to exact laws of nature…. [T]he natural scientist has the tendency to look upon everything as nature…. Thus the naturalist, to consider him in particular, sees only nature, and primarily physical nature. Whatever is, is either itself physical, belonging to the unified totality of physical nature, or it is in fact psychical, but then merely as a variable dependent on the physical, at best a secondary 'parallel accompaniment'. Whatever is belongs to psychophysical nature, which is to say that it is univocally determined by rigid laws. (1965, 79).

Although Husserl was not opposed to natural scientific explanation, he was opposed to scientism, the view that everything is fully explained by natural science. Husserl shows that naturalism, in the form of psychologism, refutes itself by reducing formal-logical principles or laws of nature to mere psycho-physical processes. Accordingly some phenomenologists argue that to naturalize phenomenology would be to do something other than phenomenology. Phenomenology should remain a transcendental discipline, conducted within a transcendental attitude.

One response to this objection, however, is that phenomenology, even in Husserl, is broader than just the transcendental project. Indeed, Husserl suggested the possibility of developing a phenomenological psychology, understood as a reflective investigation of intentional consciousness from the first-person perspective, while remaining within the natural attitude. Such an approach is clearly consistent with Husserl's idea that the results of transcendental phenomenology should not be ignored by science, and that 'every analysis or theory of transcendental phenomenology – including . . . the theory of the transcendental constitution of an objective world – can be developed in the natural realm, by giving up the transcendental attitude' (1970, p. §57).

In addition, beyond Husserl, there have been a number of phenomenologists, like Gurwitsch (2009) and Merleau-Ponty, who have appealed in various ways to psychology and neuroscience. Merleau-Ponty calls this a 'convergence'. And there have been a number of convergences, including scientific studies that have integrated phenomenology into either experimental design or the analysis of data under the headings of neurophenomenology or 'front-loaded' phenomenology (Varela 1996; Gallagher 2003; Gallagher et al. 2015).

There is still a worry, however. Namely, given the assumptions made by cognitive science concerning issues like computationalism and representation, there seems to be a basic opposition between phenomenology and cognitive science. If naturalization means that phenomenology simply adopts such assumptions, then phenomenology is in some sense undermined. As Helena De Preester (2002, 645) puts it, 'A naturalized phenomenology is no longer phenomenology'. As I've indicated elsewhere (Gallagher 2012), that would only be the case if the question is just the one that Gerald Edelman (2002, 125) asks: 'Is a new phenomenology, which would completely eschew transcendentalism in favor of computational principles, possible'? I think the issue really goes the other way, however, as De Preester herself notes. That is, phenomenology critically challenges the basic assumptions of cognitive science, including computationalism, representationalism, and reductionism (Gallagher and Varela 2003). In this respect, phenomenology operates like a Trojan Horse; it changes the science by getting into it, or at least it pushes it around a little. The question becomes: can we do a non-reductionist cognitive science?

Merleau-Ponty proposed something even more radical, even as early as his first book, *The Structure of Behavior* (1983): Rather than simply accepting the classic definition of nature and the concept of naturalization based on it, we should rethink what these terms mean. We should resist naturalizing phenomenology if we are thinking of nature on the classic conception reflected in Descartes or Galileo's writings, for example, which

assumes that objective nature means a reality that is independent of any observer, which can be described in abstract theoretical, and sometimes geometrical or mathematical terms (Fjelland 2002). On this conception of nature, which 'contains only the kinds of things that the hard sciences recognize' (Rosenberg 2014, 32), Merleau-Ponty argues:

> Science manipulates things and gives up living in them. It makes its own limited models of things; operating upon these indices or variables to effect whatever transformations are permitted by their definition, it comes face to face with the real world only at rare intervals. Science is and always has been that admirably active, ingenious, and bold way of thinking whose fundamental bias is to treat everything as though it were an object-in-general – as though it meant nothing to us and yet was predestined for our own use. (1964, 290).

When Merleau-Ponty says there is a 'truth of naturalism' (1983, 201ff), his point is not that there is a truth of naturalism understood in terms of the classic concept of nature. In this respect we can think of enactivism as a philosophy of nature that reconceives of nature, as Merleau-Ponty suggests, in terms of form (structure, gestalt), or, as in his later work, 'flesh' (Merleau-Ponty 1968) – where nature is not independent from the perceiver or the agent, but is a set of relations enacted in perception and action.[2] There is a truth of naturalism predicated on that kind of nature. For enactivists, this is the thought behind Varela's idea that as a perceiver/agent one enacts or brings forth a world relevant to one's experiencing body and lived history. There is much more nuance behind that thought than I can explicate here. Taking up the idea that the embodied perceiver enacts the perceived, meaningful world, for example, leads us back to a transcendental perspective and connects with hermeneutical concepts of world that one finds in Heidegger, Gadamer, and McDowell. In this sense the world is neither a mere representation in the brain, nor simply a set of things in the physical environment. Rather, it is co-constituted in perception and action. In its concentrated form, this idea is captured by one of Varela's favorite phrases from a poem by the Spanish poet Antonio Machado: 'you lay down a path in walking'.[3]

[2] For the idea of enactivism as a philosophy of nature, see Gallagher (2017). To see why this idea of rethinking nature is radical and controversial, see my paper "Rethinking nature: Phenomenology and a non-reductionist cognitive science" (Gallagher 2018) and the 15 commentaries published with this paper.

[3] Antonio Cipriano José María y Francisco de Santa Ana Machado y Ruiz, "The road is your footsteps," trans. F. Varela.

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