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The enactive approach: a briefer statement, with some remarks on "radical enactivism"

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Abstract

The chief problem for the theory of mind is that of presence. In this paper I offer an explanation of this claim, and I indicate how my own "enactive" approach to mind has tried to address this problem. I also argue that other approaches, such as that undertaken by Hutto and Myin, have side-stepped the problem, instead of addressing it; their position opts for reductionism and eliminativism. This essay has two parts. The first is an exposition of the enactive approach, as I understand it, and the second is a critical evaluation of Hutto and Myin.

Keywords Intentionality · Perception · Enacting · Enactivism · Sensorimotor enactivism · Radical enactivism

This paper has two parts. In the first part, I offer a restatement of central elements of an approach to mind and experience that I dubbed "the enactive approach" (Noë, 2004). In the second, somewhat longer part, I discuss the position of Hutto & Myin as this is developed in their 2013 book *Radicalizing Enactivism: Basic Minds without Content*. Hutto and Myin criticize my earlier conception and style their own position as a more radical alternative. I try to explain why I am not persuaded that their proposal can succeed.[1]

[1] This essay was written for the Sharif Summer School on Philosophy of Cognitive Science: 4E Approaches, a conference held on 8–9 September the Sharif University of Technology in Tehran, Iran during the pandemic of 2020; its was presented remotely via web-conferencing technology. The task I set myself was that of offering a restatement of the enactive approach as this had been worked out in a series of writings (O'Regan & Noë 2001, Noë, 2004, 2012, but also Hurley & Noë, 2003), and also to offer some clarification of and amendments to this position. It was my aim, in addition, to offer comments — my first in a public forum — on the so-called "radical enactivism" of Hutto and Myin. Thanks to Abootaleb Safdari Sharabiani for the invitation, and to Shaun Gallagher, Jasper van den Herik, Evan Thompson, Dan Zahavi, and two anonymous referees for constructive criticism.

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I

The chief problem in the whole domain of the mental is presence. We show up. The world shows up. We are present in the world. The world is present to us, in thought, and in experience. This phenomenon encompasses the divide between consciousness and intentionality, as well as the related but independent distinction between perception and thought.

The core claim of the enactive approach, as I understand it, and as this was developed in Noë, 2004, and also O'Regan & Noë, 2001, is that presence does not come for free. It doesn't happen in us. We achieve it. Or rather, we enact it.

Our concern, in trying to develop this new theory of perception and mind, was to avoid three pitfalls or obstacles to the framing of an adequate account of presence.

The first is the idea that presence would be secured by having pictures or sentences in the head. You can't explain presence this way, because any account of pictures or sentences already presupposes presence. What is a picture, after all, but an instrument, made by people, *for making present,* that is, for putting something on display? The same is true of sentences. As Wittgenstein understood, a sentence can be thought of as a kind of picture; it shows you how things would be if it were true.

The appeal to representation, in philosophy and cognitive science, is usually just a veiled way of appealing to mental pictures or sentences. This is obvious in the case of Fodor (1975) and his language of thought. But there are other well-known strategies for naturalizing representation and so for trying to give a representational explanation of presence. To mention only one example: according to evolutionary or teleological accounts, an animal's mental states refer to or represent *meat*, say, because of the way meat figures in the adaptive history of the animal. As is well known, however, there are different ways of describing this adaptive history. Whatever role meat has played has presumably also been played by, e.g., unspoiled meat, or unpoisoned meat, or maybe even anything that is, to the animal, qualitatively indistinguishable from meat. *Meat,* in so far as it *shows up for the animal,* in their thought and experience, is indeterminate as between at least these different possibilities, or rather, it is so if we limit ourselves to the resources of adaptive history and evolution. Putnam (1992) has made these points, and I agree with his statement that "Evolution won't give you more intentionality than you pack into it." (32).

A second challenge has to do with the idea that the achievement of the world's presence is not our achievement, but rather that of our brain. The problem here is that if you leave the person out at the front end — either by focusing on the brain alone, or by focusing on dynamic interactions among brain, non-brain body, and environment — you won't find a way to get the person, or animal, in at the back end. Since presence is, manifestly, a phenomenon of the personal level — it is the question how things "show up" to conscious beings — to leave the person out of the story is to abdicate any attempt at understanding the problem of presence itself.

The third challenge — this was a central proccupation of Noë, 2004 — has to do with the holistic character of presence and with the limitation of more atomistic accounts. Even the simplest experience refers to a larger and all encompassing whole. You can't see a tomato, without having a visual sense of the presence of even the unseen portions of the tomato, as well as of the background against which the tomato shows up, including the hidden portions of the space around you — for

example, what is behind your head and beyond the walls of your room. But this present world, present even in its absence, exceeding what can be taken in at a glance, as it were, is multi-dimensional — perceptual, in every modality, but also redolent of meaning. The tomato is edible, it is there for others, it has a monetary value, and so on. To see a tomato, you need an access to all this. This doesn't mean that we need to "fill in" or "construct" what there is on the basis of what is there, what is "given." As the Phenomenologists say, the world is always already there.

So an account of presence needs to avoid the pitfalls of denying the holistic character of consciousness, eliminating persons in favor of the brain or other sub-personal substitutes, and attempting to think of presence as a matter of representation.

It is not easy to do this, and so it might seem that the prospects for a "naturalistic" explanation of presence, that is to say, of mind, are not very good. No doubt, if you are looking for the kind of explanations characteristic of physics and chemistry, but in the domain of the mental — even narrowly construed as concerning such topics as perception or language — then there is little reason to think you will be successful.

But this is no cause for dismay. There are other kinds of understanding worth having, and surely it is possible to understand ourselves, or at least to work towards such an understanding. As Collingwood (1945, 176) noticed, it is a certain relic of positivism to suppose that natural science offers the only kinds of explanations worth having.

According to our approach, sometimes known as sensorimotor enactivism, the animal's practical knowledge of the ways its own movements produce sensory change is the ground of the animal's experience of the world's presence. It is the animal's knowledge that by moving it can bring more of what there is into view that is the basis of its sense, now, of the presence of that which is not yet in view. Our approach might better be called sensorimotor *knowledge* enactivism, since what does the work here is *knowledge* of sensorimotor contingencies rather than the mere fact of their obtaining. The view tries, in this way, to avoid reductionism (i.e.the reduction of mind to non-mind). Of course the sort of "knowledge" we took for granted was not conceived of as linguistic or intellectual. It was meant to be available to non-linguistic animals and indeed to serve as a ground-level in explaining the possibility of different, more conceptual, more linguistic forms of understanding. The relevant knowledge of sensorimotor contingencies was glossed as implicit, practical, and non-propositional, as a matter of know-how.

In this connection, it is worth mentioning the provocative and productive position on the topic of practical knowledge developed by Stanley (Stanley & Williamson, 2001; Stanley, 2011). Stanley has argued that all know-how is propositional. To know how to ø is to know, in a practical sort of way, that thus-and-such is a way to ø. The problem with this proposal is that you cannot know that p without understanding that p, and understanding is itself, at least in part, a practical ability (as argued by Wittgenstein, 1954, Bennett & Hacker, 2003, and others, e.g. Noë, 2014). What this shows is that you can't reduce knowledge-how to knowledge-that, for knowledge-how is always presupposed. For this reason, Stanley's commitment to the claim that practical skill or ability entails the possession of broader intellectual capacities although well-founded in itself does not in turn justify the claim that we can reduce the former to the latter. (See Noë, 2014 for discussion.) Human and animal life is replete with understanding, and this

understanding finds its expression in both practical and more overtly intellectual ways of knowing (in both what we know and in what we know how to do).

Back to presence. Brooks (1991) had argued that robots don't need internal world models; the world can serve "as its own best model." O'Regan had the same idea independently: the world can be an outside memory source, he argued in a 1992 paper. I believe this idea was in the air and others had articulated it. It is implicit in Dennett's (1991) criticism of "filling-in" as this notion is used in cognitive science; it had been articulated by Dreyfus and Minsky. And maybe it is already implicit in Husserl.

Against this background of this important idea, I argued (Noë, 2004, 2012) that the varieties of presence correspond to the varieties of different ways we can achieve access. Sensory modalities, on this view, are *styles* of access. Thought, as distinct from perception, is a different style, that is, manner of skillful achievement, of access. Concepts themselves, on this view, are a distinct species of skills-of-access. The fundamental modality of the world's presence is its accessibility. Things show up not as *in here, in the mind,* but as *there, always more or less within reach.* Presence is always partial and phenomenologically amodal: the world shows up the way the *hidden parts* of the things we see show up, as manifestly present but not as *represented*, but as *available*. This is what I meant by suggesting that "content" is virtual *all the way in* (Noë, 2004); no quality is so simple that we can take it in all at once; there is always hidden structure; we are always only in the relation of having access to what there is; we never exhaust access,.

Sensory modalities are styles of access, or, in the terms of O'Regan & Noë, 2001, they are defined by the distinct repertoire of sensorimotor skills on which they depend. Sensorimotor skills, but also concepts, on this view, are skills-of-access, species of practical knowledge, of know how. Style, skill, know how, these are, it is important to notice, achievements of the whole animal or organism. That is they are animal-level powers and accomplishments.

What is perceiving? This was our formula: it is an *activity of exploring the world drawing on knowledge of sensorimotor contingencies* (Noë, 2004; O'Regan, 2011; O'Regan & Noë, 2001). But now we can ask: is this a thesis of the personal or the sub-personal level? If you think of it as a personal-level claim, then it seems to attribute a bit too much agency to the person. We are not all heroic explorers, continuously at work enacting the world around us. But nor is it quite right to say that the claim pertains to sub-personal processes. After all, sensorimotor knowledge, an understanding of the sensory effects of one's own actions, the relevant "activity," these are best thought of not as something going on inside the animal, but as something the animal does.

I have tried to clarify this in recent work (Noë, 2015). The critical level at which this theory is intended to operate is *intermediate* between the personal and the sub-personal levels. This has been called the embodiment level (e.g. by Ballard, 1991) and it is sometimes useful to think of it as the level of habit. What kind of activity is perceiving, then? It is habitual activity. The thing about habits, as distinct from sub-personal processes and events, is that they belong to us, even when we do not control them deliberately or even consciously. And moreover, we can become aware

of them as we can never become aware of neural activity itself. Habit, I suggest, is quasi-personal.

It is a direct result of this that, as I have more recently come to believe, experience is an aesthetic problem. Merleau-Ponty (1945/2012) may have had his finger on this thought when he wrote: "nothing is more difficult than knowing precisely *what we see*" (59). Many philosophers and scientists have bemoaned the fact that you can't attend to your own experience without in that very act making it different. Others have noticed that the intrinsic qualities of experience — its qualia — refuse to be captured in words or thought and have no communicable meaning. Others worry that by dint of its transparency, experience itself refuses to be directly encountered.

But these are not problems in our theoretical starting point, to be overcome by ingenuity. They give us a clue, rather, to the *essentially* problematic, unfixed, becoming character of experience. Experience is unfixed the way a work of art is unfixed. Reflect on it all you want, and you won't get to the bottom of it. For reflection discovers new possibilities within it. To know what one sees, or what one undergoes in seeing, that's sometimes an aesthetic project, like describing a painting, or a play, or a piece of music. It is an aesthetic challenge and an opportunity. (This is the theme of Noë in press.)

A final point: experience, according to this understanding of the enactive approach, is *creative*. It is an activity of making, assembling, or putting together. Thompson and Varela (Thompson, 2007; Varela et al., 1991) would have it that it is the *world* that is brought forth through enaction. I have always resisted this. We make *experience*, not the world. But I now think that the difference between my view and theirs is not so great after all and I am inclined to agree with them, at least to this extent. Experience, as I understand it, is not something that happens inside us; it is rather something we do; indeed, it is something we do in the situations we find ourselves in, but that also, crucially, contributes to making those situations the situations they are. To enact ourselves in the world is to alter the world and so, in that sense, to make it.

II

I turn now to the self-styled radical enactivism of Hutto and Myin as this is developed in their 2013 book. (For discussion of their second book, I recommend Evan Thompson's, 2018 review). Far from deepening or extending the enactive approach — as this has been developed, for example, in the work of Noë (Noë, 2004, 2009, 2012); O'Regan (O'Regan & Noë, 2001; O'Regan, 2011); Thompson (Thompson, 2007; Varela et al., 1991); Di Paolo et al. (2019), or finally, to conclude this incomplete list, that of Gallagher (2005) — Hutto & Myin rely, at crucial junctures, on ideas I would describe as both internalist and reductionist. They attack views of mind that a give prominence to understanding, intellect, knowledge, content, representation, but seem not to appreciate that the real task is to rethink what representation, content and the other notions are or could be; merely to insist that experience is content-free and non-representational is not yet to break from from the problem space of content and representation, but, as it were, merely to react against it. But reaction doesn't get to the root of things. It is not radical. As a result of this, I think, the problem of presence does not come into focus in their book. In the remainder of this talk, I'll try to say enough to justifying these claims.

Any serious investigation of ourselves and our minds, or those of other beings who are in some ways very much like us and in other ways unlike us, i.e. non-human animals and plants, must begin with what we know. And what we know is the *fact* of presence. It is not for nothing that Husserl and Wittgenstein, to name two philosophers I never stop learning from, always begin at the beginning, or always try to rise to the level of the absolute beginner. In philosophy we don't have the luxury of beginning with questions, we have to work just to figure out what the right questions are. And so we begin with the phenomena, that is, with what we know.

Hutto and Myin do not do this. Instead they bracket presence and discount it, right at the outset. They write:

> "Yet even the most radical of enactivists need not, and should not, deny the existence and importance of contentful and representationally based modes of thinking: it is just that they should be regarded as emerging late in phylogeny and ontogeny, being dependent on immersion in special sorts of shared practices. Enactivists are concerned to defend the view that *our most elementary ways of engaging with the world and others—including our basic forms of perception and perceptual experience —are mindful in the sense of being phenomenally charged and intentionally directed, despite being non-representational and content-free*. (13)" (emphasis added),

I agree that language and other "special sorts of shared practices" scaffold and so enable distinctive forms of thought and experience. It is a mistake, however, to concede, to the establishment, as it were, that these distinctive forms of thought are "contentful and representationally based." Representationalism is wrongheaded, I would say, no less when it comes to language than when it comes to perceiving or other more "elementary" modes of thought and awareness. Language is no less bodily than perceiving or dancing, and like dancing, it is a mode of activity and a medium for doing, thinking, finding, exploring, in effect, a medium for being. Crucially, it is also a normative space where what we do is subject to critical reflection and inspection. The idea that at its core language is a system for *representing* truth-assessable *contents* is remote to what I understand to be the enactive approach to the mind. (See Di Paolo et al., 2019 on this, but also Taylor, 2016 and Noë 2021. See also Hacker, 2014 and van den Herik, 2019).

But notice we can give up such a narrow conception without feeling any pressure to give up our commitment to the fact that even non-linguistic animals can, for example, pay attention to what is going on around them, or find out where the nuts are hidden, or spy out the location of the predator they suspect is stalking them. And notice also that we are able to appreciate the thick, world-situated, meaningful character of our perceptual lives, lives that only make sense in the setting of our caring and our competence, without, thereby, endorsing familiar views such as that, eg. perceptual experience has representational content.

But if the conception of language that Hutto and Myin seem here to take for granted is uncritical, then so too is their picture of the way language re-makes our phylogenetically and ontogenetically more 'primitive' minds. The human en-languaged mind is not simply the animal mind (whatever that is) *plus* language, and culture, and everything else that language and culture make available. Culture

transforms the mind from the ground up. Can we say that a monkey and a person have the very same experience when they see a chair, say, or a tree, or a book? Obviously, something speaks in favor of that. It is the very same object (chair, tree or book) that activates the visual systems of monkey and person and we can suppose that these homologous systems are highly similar in both species. But a lot speaks against the idea that there is a shared experience. The person and the animal, to borrow Wittgenstein's (1954) phrase, have entirely different forms of life. They might occupy one and the same physical environment, but they will do so differently, armed as they are with different skills which are tied up with different motivations, different needs, different curiosities, different feelings. The human grip on what a book is, the possession of that concept, whatever else we want to say about this, is connected with the way humans use books and with the role that books play in human life. To see the book is to engage it as the meaningful thing one's whole form of life requires it to be. The monkey, by virtue of its different form of life, can have no such experience *whatever* events are brought about in its visual system.

But this point bears also on the limitations of the animal-mind-*plus* view even when it comes to the question of doing justice to the animal's mental life. Every animal is *at home* in its own ecological niche; its form of life make it distinctively adapted to the entities proper to that world. So it turns out that *our experience* is not a merely culturally enriched version of what the (cognate) animal already has, for the animal's experience is shaped by the animal's unique orientation to the things it cares about, knows, and needs. This is another way of saying that even in the absence of language and tool use, there is also always something like animal culture.[2]

But Hutto and Myin seem to have a much more austere and limited conception of what is in the purview of "basic mentality (13)." They would presumably deny that

[2] Myin and Hutto (2015) distance themselves from a misguided strong representationalist view of language in other work. They write, for example: "Note that nowhere have we claimed that all uses of language involve representational content, let alone that the content-involving uses of language are fundamental—in any sense. Note too that linguistic representations are public, occurring in written or spoken forms. Learning a language happens amidst the dynamic use of public signs, in interaction with and guided by those already fluent in the practices the language learner is entering. To account for content as it is (sometimes) involved in language is to account for the sociocultural practices in and from which language emerged." See also Myin and van den Herik 2020. But do they go far enough? They grant that not all uses of language are to be understood in terms of content and representation, and they insist that these notions only ever get a grip thanks to language. Moreover, they insist that in the absence of language, "basic minds" have no contents, etc. But what they do not offer, so far as I can tell, is a way of accounting for presence (or meaning) independently of these problematic notions. And so their conclusions — I take it this is the upshot of their consideration of what they call the Hard Problem of Content in chapter 4 — remain negative (e.g.basic minds are *not* representational, etc.), but also tend thereby to take "content" and "representation" for granted in so far as they rely on these notions to characterize what they are denying. A better approach, such as is developed in Di Paolo et al., 2019, would divorce presence from these notions of "representation" and "content" altogether. Or to put the point in a different way: there *is* no Hard Problem of Content.

animals have worlds in anything like the sense that I have been supposing.[3] Indeed, as we will see, for Hutto and Myin, animals, and people in so far as we think of people *sans* the cognitive capacities made available by language, etc., are basically just "action oriented engagement machines" (in Clark's, 2016 excellent phrase) that are shaped, a la Dretske, by evolution, and also by the organism's history of interactions. (8).

This comes out in what they say about perception:

> "REC [the view Hutto and Myin defend]…holds that, although in perception there is a certain way that the world is phenomenally experienced, such experience is not intrinsically contentful. Perceptual experiences can incline or prompt explicitly contentful beliefs and judgments, but they do not, in and of themselves, attribute conditions of satisfaction, nor do they process veridical content that is accurate or inaccurate, true or false. If basic perceptual experiences— even those of the phenomenally conscious sort—possess no content, then there is simply no question of their being true or false, veridical or unveridical." (87)

Taken literally, Hutto and Myin seem to be asserting that *nothing shows up* for a non-linguistic animal. They don't learn what is going around them by sight, sound or smell; their perceptual skills don't equip them to find what they are looking for or to evade what they fear. These experiences do not pertain to, or refer to, the world. As they explain: "biologically basic modes of organismic responding don't involve content, where content is understood in terms of either reference, truth, or accuracy. (78)".

It is possible to recognize in what they write here a number of obvious sources and antecedents. The idea that perceptual experience is a mere episode in consciousness with no intrinsic world-encountering significance is the main plank of the sense-datum theory; it is endorsed by Descartes (1984) who, like the sense-datum theorists, and apparently like Hutto and Myin, holds that perception is a three-stage process whereby physical stimulation (stage 1) gives rise to qualities in consciousness (stage 2).[4] At stage 3 we make inferences from these qualities to their

[3] "World" is obviously a tricky notion with deep roots in the Phenomenological Traditional. It is an indispensable idea that features prominently in Smith's (2019) discussion of human being and artificial intelligence. Presence, as I use it, implies a world, that is, it implies not only that things *show up*, but that they show up as residing within a skein of meaningful relations, some foregrounded, others in the background. Having a world is more than just residing oneself in a range of saliences and significances; it requires caring, "giving a damn," having a stake in where you are and in how things are. Now obviously, as Smith appreciates, there will be big differences between the structure of animal and human worlds. My claim here is that animals, too, have worlds.

[4] Descartes argued, in his Sixth Set of Objections and Replies, that we need "to distinguish three grades of sensory response. The first is limited to the immediate stimulation of the bodily organs by external objects; this can consist in nothing but the motion of the particles of the organs, and any change of shape and position resulting from this motion. The second grade comprises all the immediate effects produced in the mind as a result of its being united with a bodily organ which is affected in this way. Such effects include the perceptions of pain, pleasure, thirst, hunger, colours, sound, taste, small, heat, cold and the like, which arise from the union and as it were the intermingling of mind and body, as explained in the Sixth Meditation. The third grade includes all the judgments about things outside us which we have been accustomed to make from our earliest years – judgments which are occasioned by the movements of these bodily organs…" (page 294/5).".

likely environmental causes. Hutto and Myin wouldn't like talk of "inference," but Descartes is sensitive to this worry, too. He recognized that these inferences are made habitually; this explains how perception might come, in Hutto and Myin's phrase, to "incline or prompt" beliefs about the local environment of the perceiver without themselves actually having any intrinsic connection to that environment. Hutto and Myin seem also to rely heavily, here as elsewhere, on Dretske (1993, 2015), who insisted on the contrast between visual experience (for example) and the use we make of that experience in the formation of beliefs, the framing of thoughts, the guidance action, or whatever. The latter, the beliefs, thoughts, etc., are conceptual or thought-dependent, but not the perceptual experiences themselves, which, for Dretske, are in effect pictorial. Hutto and Myin go further than Dretske, or, as I might say, they backslide further, in holding that the experiences themselves don't rise to the level of encounters with how things are; they are sensations, not perceptions, to make use of that older distinction; they are, like sense data themselves, *internal*. As we will see this is not the only place Hutto and Myin seem to take an internalist conception for granted.

An interesting question arises as to *why* they feel it is useful or necessary to hold on to such a conception of experience as intrinsically disconnected from the world around us?

Part of the answer is that they are forced to do so. Having factored out the resources provided by language, and fallen back on a more minimal and austere conception of "biologically basic modes of organismic responding," they have no choice but to leave basic minds, which is to say, our ontogenetically more primitive selves, in the dark, caught up, blindly, in "dynamic patterns of interaction" with the environment.

But part of the answer, too, is that they don't seem to realize this is what they have committed themselves to. And this in part because then think they can recover the world for their simple minds by insisting that despite there being no reference, no content, no truth, the elementary ways of responding of animal minds are, as we saw at the outset, "phenomenally charged" and "intentionally directed." Remember the quote with which I began: "Enactivists are concerned to defend the view that our most elementary ways of engaging with the world and others—including our basic forms of perception and perceptual experience —are *mindful in the sense of being phenomenally charged and intentionally directed,* despite being non-representational and content-free. (13)" (italics added). And elsewhere they write: "we conjecture that the great bulk of world-directed, action-guiding cognition exhibits intentional directedness that is not contentful…" (82).

Can they have it both ways? Well, yes. If you reject, as I would, the claim that the only way to do justice to presence is by subscribing to one or another of the standard views about representational content, etc., then the rejection of one of those thin views of what perceptual experience is leaves you right where you started, looking for a better, more plausible conception of intentionality and experience, or presence.

But that's not the route Hutto and Myin follow. They take another card from Dretske's deck, endorsing a variant on his evolutionary teleofunctionalism. They are explicit about this. They write: We "adopt the basic apparatus of teleofunctionlism minus the idea that experience has the function of "saying," indicating," or

"representing." The teleofunctional approach is revised [by us] to assert, much more modestly than Dretske's variant, that *experiencing organisms are set up to be set off by worldly offerings — that they respond to such offerings in distinctive sensorimotor ways that exhibit a certain minimal kind of directedness and phenomenality.* The important difference is that, in this revised version, responding in such a way to specific kinds of situations does not inherently "say" anything about how things stand with the world." (page 19, My italics.)

A few important remarks here.

This discussion is entangled in the rhetoric of *us versus them*. They take themselves to be making a radical break from Dretske when they give up the idea that experiences have the function of "telling" us what is going on around us. But then they bite the bullet. If there's no telling going on, then there's no genuine experience of what's going on around us. — But why accept that only a "telling"-based account can underwrite a fuller, more robust account of worldly presence? If they have a reason for this, they don't make it explicit. If they have an independent account of presence in view — independent that is of the organizing influence of talk of reprentations and content — they don't give any clue as what this might be.

This paragraph also brings out the degree to which Hutto and Myin have stepped back from an account in which the organism itself, that is to say, the live, whole animal, has any agency, and any role to play, and to have replaced it with a conception of the organism-as-robot. As we have seen, according to Hutto and Myin, the organism is built or designed ("set up") to be triggered ("set off") by stimuli ("worldly offerings") that have been selected for under evolutionary pressure. If there is intentional directedness it is only in the sense that what happens to organisms, thought of as situated brain-body systems, is governed by the history of past interactions and also by evolution.

Let's try to understand this more deeply. Consider how they characterize what they call the Embodiment Thesis. This thesis, they explain, "*equates* basic cognition with concrete spatio-temporally extended patterns of dynamic interaction between organisms and their environments.(5)" (my emphasis) They also say: "These interactions are assumed to take the form of activity that unfolds across time and which essentially involve individuals engaging with aspects of their environments (5,6)." And they affirm: "mentality….is in *all* cases concretely constituted by, and thus literally consists in, the extensive ways in which organisms interact with their environment where the relevant ways of interacting involve, but are not exclusively restricted to, what goes on in brains (7)."

Now we might be forgiven for taking these statements to be, as it were, personal or organism-level statements to the effect that animals are continuously engaged in activities in and with their bodies and worlds and that that's what mind is, a phenomenon of the whole animal, an organism-level reality. Frequent mention of "individuals" and "organisms" suggests that it is what *they* do, organisms, that is at stake. Mention of "engaging with aspects of their environment" also suggests that we are thinking of the animal as, as it were, an *interested party*.

But I don't think this can be what they mean. Recall, organisms don't actually *do* anything. They are "set off" in "distinctive sensorimotor ways"(19). The use of the passive and causal idiom of "interaction," as in the phrase "patterns of dynamic interaction," and reference to "what is going on in the brain," in the above passage from

their page 7, suggest, rather, that what they have in mind is something more like a sub-personal story. Further support for this comes from their discussion of robots. They appeal to "the great success" of work in robotics — they've got Brooks' 'subsumption architecture' in view — as providing something like an existence proof that "beings" whose responses are determined by stimuli in "a representationally unmediated way" (42) — which is how they think of basic human and animal minds — "can act intelligently." Reflecting on the architectonic details of artificial agents, they emphasize "that the specified bodily and environmental factors are equal partners in constituting the embodied, enactive intelligence and cognition of these artificial and natural agents." (44) Or again: "bodily and environmental factors play ineliminable and non-trivial parts in making certain types of cognition possible. (43).

Here it seems clear, I think, that it is not the organism that is in play, in any agential, personal-level sense, but rather, that it is the organism's brain and non-brain body, in their dynamic of interaction, that are called on to explain the emergence of "intelligence and cognition" in the organism, *that is*, to explain how entities "set up" to be "set off" as they are can exhibit the kind of "intelligence" demonstrated even by simple robots.

Now one problem this line of reasoning is that it is doubtful that any robot has ever in fact managed to exhibit intelligence and cognition of the sort that all animals display. An account that targets explaining robotic minds has the wrong aims in view, I would say.[5]

But there is a more general unclarity surrounding levels that is striking and important, and precisely because it bears on the question just what Hutto and Myin take the relevant "spatially extended patterns of dynamic interaction", or the "extensive ways in which organisms interact with their environment," *to be*, and thus on what the Embodiment Thesis means.

Hutto and Myin tell us a lot about what these engagements and basic biological responding are *not*. A great deal of weight is attached, for example, to the assertion, that the "patterns of dynamic interaction" are not "content"-bearing; they are not states that refer or represent, or that can be appropriately characterized in terms of knowledge, concepts or expectations, or any other overtly mentalistic conditions or capacities. But what they don't tell us is what "biologically basic modes of organismic responding" *are,* and in particular whether these are conceived of as a phenomena of the organism level or the sub-organism level, or in some other way. And this is crucial. Since, after all, to deny that the animal has knowledge or concepts or expectations, that it perceives how things are, all organism level, is not to say anything at all about the best sub-organismic model of how the brain, or, as Hutto and Myin would prefer, the brain, body and world, jointly enable or "underwrite" the animal's cognition and consciousness. Likewise, and critically, to deny that mental powers of thought, knowledge, etc.operate sub-organismically, is not to give any reason, yet, for denying such capacities to the animal itself.

[5] Animals have worlds. I am not persuaded that this can be said of machines, even Alpha Go or Watson or GP3, let alone any of Brook's creations. (See Smith, 2019 for some support for this claim.) The putative fact that we can explain how robots or AI systems work in terms of a set of ideas of principles should not be taken, therefore, to provide even *prima facie* evidence that animal minds can understood similarly. Alternatively, if our model explains us in such a way that we a revealed to be mere robots, then, it seems, our model isn't succeeding.

This unremarked gliding between personal and sub-personal levels, or rather organismic and sub-organismic, seems to testify to a *non sequitur* at their book's heart. We can discern it, already, on the first page of the preface. They begin by describing familiar mentality, eg "finding one's way through unfamiliar terrain, attending and keeping track of another's gaze, watching the sun rising at the horizon." But then they write: "we propose, the nature of the mentality in question is not underwritten by processes involving the manipulation of contents…Basic minds do not represent the conditions that the world might be in."

Notice that they begin here with the organism-level facts of mind such as that people and animals watch stuff. And they propose that *this very mental activity,* is not actually representational, appearances to the contrary notwithstanding, *because* it is "not underwritten by processes [presumably sub-personal] involving the manipulation of contents." But this is the non sequitur. The fact that our mental lives are not causally enabled by processes involving "content," etc., doesn't entail, all by itself, that these causally dependent experiences and actions and intentions do not pertain to, refer to, to involve an interest in and a concern for how things are.

Elsewhere Hutto and Myin write: "A truly radical enactivism — REC — holds that it is possible to explain a creature's capacity to perceive, keep track of, and act appropriately with respect to some object or property without positing internal structures that function to represent, refer to, or stand for the object or property in question." So far so good. But then they add: "Our basic ways of responding to worldly offerings are not semantically contentful. (82). But this latter claim is not justified by, or grounded on, the support they offer for it, namely, the absence of "internal structures that function to represent, refer to, or stand for the object or property in question."

What's the missing premise that would license inference from "no internal structures with content" to "no experience with content," or from "no underwriting by processing involving the manipulation of contents" to "no genuinely sunset-referring visual experiences"? Surely just this: if a person or animal has an experience of the sunset, or of another animal's gaze, then these features or properties must be represented *inside* the person or animal. But to hold this just is to subscribe to the chief dogma of internalism, to wit, that the content of our experiences must be represented in our heads. It is the commitment of Hutto and Myin to this dogma that plays the decisive role of seeming to warrant what turns out to be not so much a 'radical enactivist' insight into the embodied and world-involving character of mind, as, rather, a reductionist elimination of non-linguistic mind altogether. Simply put, it is because they take the dogma for granted, that they insist that non-linguistic animals lack, as they would put it, richly worldly involving content. They reason from the (putative) absence of the right kind of sub-personal structures to the absence of "content." Notice, this is a case of throwing out the baby with the bathwater, if ever there was one.[6]

[6] They are in good company. The same fallacious reason is at work in Dennett's (1991) treatment of filling-in, as remarked in Pessoa et al. 1998, but see also Noë 2002. Dennett takes the fact that there is no picture-like representation in our brains of all the detail in the world around us to show that our sense that we see all that detail is an illusion. But the mistake here is the false presupposition that personal or animal level experience (of all the detail) requires what Noë and Thompson (2004) called an isomorphism between the experience and the internal representational state. The solution, I think, is to appreciate that the *presence* of detail in our visual experience consists in our access to detail.

Have I missed something? Don't Hutto and Myin assume, after all, that animals *can* watch a sunset, that they *can* attend to the gaze of another? And do they not *insist* on the intentionality of basic mentality? Isn't their point merely that these personal-level phenomena can be explained without appeal to sub-personal representations? If this is correct, then I would be mistaken that they go astray in trying to read off facts about the personal-level character of experience from facts about the absence of sub-personal representations.

But I think I have already said enough to explain why this reading won't work. It is very unclear whether Hutto and Myin hold that perceptual awareness of sunsets and where people are looking could belong to "basic mentality." It would seem to be their view that to suppose so "is to ascribe features and characteristics to basic minds that belong only to enculturated, scaffolded minds that are built atop them. (ix)." But whether or not this is the right way to interpret them, given their theory of how language scaffolds representations, it is hard to see how, in the absence of language, these experiences could be *worldly* in the right kind of way. After all, the only intentional-directedness of cognition that they are willing to allow in the absence of language is so minimal as to be compatible, as we have seen, with the idea that perceptual experience itself makes no claims or demands on how things are.

As I have indicated, there *are* good reasons to doubt that perceptual experience, or even language, is representational, and jargon like "content" is best avoided since it can so easily mislead. But there are three critical points that need emphasis. First, and to repeat, the insistence that our "basic ways of responding to worldly offerings are not semantically contentful" is not established by appeal to the non-existence of internal, sub-personal representations. Second, in so far as they themselves characterize cognition and consciousness negatively, as non-representational and non-contentful, they are themselves relying on these notions, using them uncritically, and uninformatively, if only to make a contrast. And finally, third, I see no independent argument, marshaling phenomenological considerations, for example, to justify their positive statements about cognition and consciousness.

In conclusion, let me be very clear: to conceptualize an organism as grounded in and explained by its participation in sub-personally characterized, causally looping dynamics of environmental exchange, is a step in the right direction. This is what many so-called enactivists have been arguing for for some time now (e.g. Chemero, Di Paolo, Gallagher, Hurley, Zahavi, or myself). But the promise, and beauty, of such an approach is that it may help us to explain how people and other animals enact world and experience, not in the ground it is wrongly thought to supply for denying experience, presence and world altogether.

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