

*Radicalizing Enactivism*. By Daniel Hutto and Erik Myin (MIT Press, 2013, xxiv + 206.)

Until very recently, the field of cognitive science was (almost) in complete agreement in characterizing the mind as a computational mechanism dealing with brain-based representations to produce actions. Accordingly, cognition was defined as always involving represented information and neurally-based computational processes operating on it. In the last decade or so an alternative to the representational-brain paradigm started to emerge, especially from those who defend a conception of human minds as embodied and embedded in physical and social environments (systems in which brain, bodies, and the world are thought to form an indivisible whole). Is this emerging paradigm – *enactivism* – a genuine alternative to the representational-computational mind or just an extension of it? Answering this question is the aim of Hutto and Myin's book.

To achieve it the book argues we must radicalize enactivism. By radicalizing enactivism the authors seek to liberate this new trend in cognitive sciences and philosophy of mind from the remainders of the old tradition of conceiving all cognition in terms of mental representations. The authors question the need to posit contentful representations at the roots of cognition - whether such content is conceptual or non-conceptual, or appears at personal or subpersonal levels of processing. The problematic notion is not in their view primarily the notion of representation (thinly understood), but rather the assumption that underlies the theoretical talk of representational or informational states, namely that minds "always and everywhere" need to deal with *contents* in order to cognize (p.9).

According to the book's main argument (some of) the most respected and well-known theories that purport to naturalize content in terms of grasping or otherwise manipulating contents are affected by what the authors designate the *Hard Problem of Content*. This problem, presented in Chapter 4, takes the form of a challenge to explanatory naturalist theories of mind – those that claim that we must universally attribute content to states that are responsible of cognition. The authors expose that if something has content, then it must have some special properties, namely, it must have conditions of satisfaction of some sort (meaning that notions of truth, reference, accuracy, veridicality and implication or their ilk must apply to it). If Hutto and Myin are right, explanatory naturalism faces a serious problem since it cannot help itself to states with these properties by using any of the standard candidate notions used to account for informational content reductively (covariance, information as indication). The authors go on to argue that this result spells trouble for any naturalistic theory of representation that relies on a notion of informational content (e.g. asymmetrical dependency theory, teleofunctionalism).

To be sure, the book does not provide a once-and-for-all knock down argument against the idea that basic minds are contentful: it does not show that it is *in principle* impossible to explain content in purely natural terms. On the contrary, it takes up the task of showing, for each and every candidate proposal considered in the book, why and how they fail to pay the bill when they claim that mental states are contentful using the naturalistic device of their choice. On that basis Hutto and Myin advocate starting elsewhere; thinking of contentful states at the level of language and linguistic competence, and describing non-linguistic capacities as deploying "intentionality (directedness to specific features in the world) without content" (e.g. pp. x, 13, 78, 81). Crucially, they distinguish information-as-covariance from information-as-content. Unfortunately, this positive view remains only programmatic throughout the book.

One can complain that some alternatives are not considered at all (for example Dennett's evolutionary naturalism or neo-Pragmatist accounts such as Brandom's) or that they are not considered with sufficient detail (as is the case with McDowell's own style of defending naturalism, briefly attacked in pp.131-134). Assuming that there is more argument to offer, this omission might be excused since the book lays out the main lines along which different types of proposals are to be discussed, framing them in terms of a dilemma between explanatory naturalism and understanding cognition as always involving informational content (pp.68-71). Even so, neo-Pragmatism and Dennett-style ascriptionism seem to be beyond the reach of Hutto and Myin's argument since these approaches either invoke a different understanding of naturalism itself – as in McDowell's case – and/or call on quite different tools for naturalizing content. It remains an open question where the authors stand with respect to these alternative approaches for naturalizing content. Moreover, throughout the book, we are left wanting a discussion of the different sorts of naturalism. The issue is especially important since the question of how to understand naturalism is key to the arguments provided in the book; it matters to the authors' own favored way of getting around the Hard Problem of Content. Assuming that language is required for content as the authors do might require abandoning explanatory naturalism altogether or seriously reformulating its ambitions. Especially, it might entail abandoning the commitment to reductive physicalism. The fact that we are not told how language and language acquisition are supposed to do the trick of introducing content casts doubt on whether the authors proposal is really a way around the Hard Problem of Content or rather amounts to the abandonment of explanatory naturalism itself. This may leave Hutto and Myin closer to some positions they dismiss as metaphysically dubious, such as McDowell's (pp. xvi, 69).

All told, a main merit of the book is that it shows that the work done so far in the project of naturalizing content is insufficient; it provides a powerful critical assessment of the current state of play in cognitive science and recent analytic philosophy of mind. Furthermore, the book pushes the boundaries and scope of enactivism as currently defended and suggests that a radical turn is on the cards for its advocates. Can content be naturalized by conceiving of it as linguistically dependent? How should we conceive of cognition if it turns out not to be the unified concept it was assumed it should be? Can we be pluralist about the nature of cognition, intentionality and intelligence? As said before, we only find in the book gestures in the direction of a positive answer to these questions, nothing like a fully developed story about how content arises. Even so, there are in Hutto and Myin's radicalized enactivist story some elements that, at least in sketch, provide resources for beginning to tell that larger, more positive story. Among them are: (i) breaking up the notion of intentionality so as to distinguish (a) directedness to a target and (b) contentful aboutness (pp. x, 13, 78, 81); (ii) conceiving the mind as extensive rather than extended (pp. 135ff), (iii) proposing that contentful minds are essentially scaffolded by language (esp. pp. 151ff).

To sum up, the book's major contribution is that it opens the door to a full new program of research within the cognitive sciences (though that aspect of the book is likely to be overlooked or misunderstood, a known risk for radicalism in all areas).

Some might balk at the cost of such a revolution, but most currently established theories both within philosophy and in the empirical domain have benefited from questioning and not taking for granted the field's prior assumptions. Researchers should welcome this book as an invitation to rethink some of the central notions they use, even if only to provide further understanding of what is being claimed. Taking up this invitation could also lead some researchers to start shaping a new way of thinking in cognitive sciences. These big issues are, of course, not to be decided on the basis of this book alone, but it is no small

achievement that it brings to the fore, for philosophers and cognitive scientists alike, the important task of accounting for the very foundations of their knowledge.

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