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Abstract

A properly radical enactivism – one that eschews the idea that all mentality is necessarily contentful and representational – has better prospects of unifying psychology than does traditional cognitivism. This paper offers a five-step argument in support of this claim. The first section advances the view that a principled way of characterizing psychology's subject matter is what is required if it is to be regarded as a special science. In this light, section two examines why and how cognitivism continues to be regarded as the best potential unifier for the discipline. But the third section exposes a serious problem about the scope of cognitivism that occurs because it ascribes properties to basic minds that only belong to more sophisticated minds built atop them. In a nutshell, the root problem is that cognitivism relies on folk psychological models of mental states when it assumes that all mentality is contentful. Although this gives cognitivism its intuitive appeal, it also makes it too limited to provide a general model of the mind. Radical enactivism's way of understanding mentality as embodied activity, it is argued, avoids this and provides a more appropriate means of understanding basic forms of mentality. Against the charge that radical enactivism is also limited in scope, the final section argues that it is inclusive enough to allow for and recognize the emergence of language-based folk psychological modes of mentality, thus making it the superior potential unifier for psychology.

Psychology Unified: From Folk Psychology to Radical Enactivism

Can there be a unified psychology? Is this a real possibility or a pipedream, as the title of Sternberg's (2005) edited volume on this topic provocatively asks? It is hard to imagine that there will ever be a single *conceptual* framework that defines the subject matter of psychology which readily commands the allegiance of all working psychologists. Let us suppose such 'unification' isn't on the cards. Does it follow that psychology lacks unity? No. The possibility of a unified psychology has never depended on articulating a singular vision that descriptively captures the actual working commitments of practicing psychologists such that it would readily command their universal allegiance. Creating such a consensus would require identifying and collecting together all of the disparate operating assumptions of all the diverse sub-branches that comprise the discipline. It would also require coherently combining these – a task only possible on the assumption that they are consistent and compatible with one another. Surely, that is a fool's errand. One would hardly expect such an enterprise to succeed, and it would be unclear what would be gained from such an endeavor; since working assumptions shift and change, attempting to unify psychology in this way wouldn't have any lasting value.

Psychology's unification does not depend on synthesizing what those working in its various branches happen to think. Rather it is unified because there is a principled way of defining and demarcating its subject matter. Articulating this would provide a regulative and legitimizing, not merely descriptive, account of 'the psychological' that could focus the efforts of many and varied sub-disciplines. It would also provide the means of settling border disputes with other scientific disciplines, of knowing where the boundaries of psychology begin and end.

If psychology is to be unified then what is needed is a convincing account of what psychological phenomena are and where they fit into the larger world order. Physics is the most general natural science, but its laws are compatible with the existence of other laws as well – laws that detail and describe the antics of distinctive phenomena with which physics does not deal; laws of the special sciences. In line with this, it is natural to suppose that the boundaries of the various special sciences are fixed by the peculiar nature of what they deal with in their autonomous domains. This assumes that there is a single, coherent story to be told, in principle, about the phenomena of interest to *each*

special science, one that makes it possible to say how they inter-relate and interface harmoniously with other phenomena. To complete that story would be to provide a single, unified vision of the whole of nature. Is it conceivable that psychology is already a well-defined special science that operates in its own, quite distinct and autonomous domain?

Cognitivist Unification: Might the ‘I’s have it?

Psychology’s most recent attempt at conceptual unification, cognitivism – the brainchild of the cognitive revolution of the 1970s – is still widely regarded as the best hope of unifying psychology. We are confidently assured that:

The unity of psychology as a science is to be found in its definition as the science of mental life, and its explanation of individual behavior in terms of mental states (Kihlstrom 2004, p. 1243)

Very well, but which notion of mental state is meant do the all-important work of defining and thus unifying psychology? Putnam (1967) articulated a brand of functionalism that advanced a powerful proposal about the nature of mental states, defining them in terms of their abstract functions. His aim was to make transparent “the kind of functional organization that is *necessary and sufficient* for a given psychological state, as well as a *precise definition* of the notion ‘psychological state’” (Putnam 1967/2008, p. 45, emphasis added).

Today’s cognitivism goes beyond the austere and abstract functionalism of the Putnam-variety, operating with a richer and more powerful conception of mental states. Cognitivism agrees with functionalism that psychology is ultimately only concerned with the mental states of individuals, but it understands mental states to possess *both* functional *and* representational properties, and it assumes that these vary for specific kinds of mental state depending on the particular role these kind of state play in the mental economy. Thus some mental states have the function of representing the way individuals take the world to be, while others have the function of representing how individuals require the world to be. Psychological behaviour ensues from, and is explained by, the interaction of such contentful, representational states. Psychology is, accordingly, defined as the science concerned

to provide a distinctive type of explanation – it explains what causes or is caused by an individual’s inner representational states. In its standard guise, cognitivism is methodologically and metaphysically committed to Individualism, Intellectualism, and Internalism. Call this the I-approach to psychology.

Psychologists who subscribe to the I-approach hold that the internal representational states of living organisms are the distinctive subject matter of psychology. Of course, this is not to deny that some psychologists take an interest in other non-psychological features and factors. That is practically necessary. But such interest is only incidental; such features and factors are only of concern because of their potential to causally influence the production and interaction of inner representational states. To adopt the I-approach to psychology is to accept a fundamental ideological commitment that *requires* giving center stage to what goes on in the intellectual insides of individuals. Notably, the I-approach is driven by a specific proposal about the subject matter of psychology – viz. that mental states are essentially contentful and that they play certain roles in the cognitive economy. It is ideological commitments of this sort that have the potential to demarcate, define and – thus – unify psychology.

Cognitivism, Folk Psychology and their limits

This may all sound good, but there is a problem. If cognitivism is to unify psychology, then the model of mind it proposes – that which it takes to be definitive of the psychological – must apply universally to all psychological phenomena. Its model will have to articulate what is constitutive of the mental *across the board*. The trouble is that the traditional cognitive model of mind is ill suited for this task. This is because its ways of characterizing mental states is too deeply rooted in and tied to an everyday, folk psychological conception of mind.

This may not be immediately obvious but some have worked hard to expose this connection. For example, according to Ramsey (2007) cognitivism is crucially committed to a representational account of mind but it also gives “rise to an outlook on representation that amounts to a sort of merger between classical computational theory and folk psychology” (Ramsey 2007, p. 38). Why so? What’s the connection? Well, on the one hand, cognitivism embraces the view that “cognition is computation,

which [is] ... understood as a form of quasi-linguistic-symbol manipulation done in accordance with specifiable rules” (p. 39). But, on the other hand, cognitivism also regards what is processed as essentially representational: the mental contents that computational processes manipulate represent the world as being in certain ways. Thus the mind both represents and computes. Given this, Ramsey (2007) astutely asks:

What type of representational notion is invoked in computational explanations of cognitive processes? The answer proposed is, the same type of representational notions that are invoked by commonsense psychology. Computational processes are seen as a mechanized version of folk psychological reasoning, and this is only possible if the symbols being manipulated are viewed as analogues of familiar commonsense mental representations (p. 45, see also p. 46).

It is thus no accident that the mental states and processes that cognitivism takes to define the very essence of the psychological are “scientific analogues for beliefs, desires, ideas, thoughts, and similar representational posits of folk psychology” (ibid., p. 38).

The catch is that the folk psychological conception of mind has its home in the ways linguistically competent adult humans sometimes make sense of themselves and others. It is thus ill-suited to be the basis for a general model of the nature of all psychological or mental states (For a detailed argument see Hutto and Myin 2013). Machery (2009) puts his finger on the source of the trouble. He notes that when it comes to understanding basic minds:

The most natural strategy is to focus on the propositional attitudes we are most familiar with (beliefs, desires, wishes, etc.) by contrast to the propositional attitudes used by psychologists to explain our cognitive competence or our behavior (e.g. Chomsky’s cognizing). [Yet,] The ascription of the latter attitudes is often controversial. Furthermore, psychologists have not developed specific principles for the ascription of these attitudes, rather their ascription piggybacks on the way people ascribe familiar propositional attitudes, such as beliefs and desires (Machery 2009, p. 42)

It is doubtful that that we can supply a workable theory of the content of such imagined subpersonal attitudes. This is surely so as long as we rely on folk psychological models of the properties of such states. This is because folk psychology conceives of mental states as possessing properties that, at best, only some mental phenomena actually possess; the features of minds it assumes are not features of mental phenomena across the board.

Philosophers have long been aware of this problem, and it has encouraged them to suppose that the explanatory posits of a mature scientific psychology are unlikely to resemble those of folk psychology. Ramsey (2007) argues persuasively that – contra cognitivism – our best scientific theories about the mind do not incorporate anything like the kinds of representations that folk psychology trades in (and some might not be committed to the existence of any kind of contentful representations). Specifically, “the crucial folk psychological tenets ... [under threat] are the claims that propositional attitudes are functionally discrete, semantically interpretable states that play a causal role in the production of behaviour” (Ramsey et al. 1991, p. 97).

Taking its lead from folk psychology’s conception of mental states, cognitivism need not assume that all mental states are propositional attitudes *per se* but it does assume that the mental states are, always and everywhere, contentful states of some sort or other. It assumes that each type of mental state is defined by its functional profile and the kind of content that it bears or possesses. The commitment to content is key. As Seager observes “The whole thrust of cognitive science is that there are sub-personal contents and sub-personal operations that are truly cognitive in the sense that these operations can be properly *explained only in terms of these contents*” (1999, p. 27, emphasis added). Adherence to cognitivism requires acceptance of “the general idea of inner states that bear contents” (Clark 2002, p. 386).

This commitment is cognitivism’s Achilles’ heel. For arguably, there are no such animals as sub-personal ‘contents’ – i.e. there are certainly no pre-linguistic mental ‘contents’ of the appropriate kind to enter into sub-personal causal commerce (for a book-length argument on this score see Hutto and Myin 2013). There are good reasons to suppose that basic minds are not populated with such entities.

That may seem like bad news, but it is not since positing contentful representations is not necessary in order to understand the operations of basic minds. We can go a long way (even if not the

whole way) in making sense of very complex, elaborate and sophisticated worldly engagements without assuming they involve content or mental representations.

In sum, there are excellent reasons to conclude that cognitivism is not able to provide a properly unifying account of the subject matter of psychology. Because it takes its inspiration from folk psychology its model of the mind only applies within a limited, quite parochial psychological domain.

Radical Enactivism – A Better Unifier?

Since the appearance of the groundbreaking *The Embodied Mind* in 1991 over two decades ago, Embodied or Enactive, E-approaches, to the mind – have proved fruitful and fecund for understanding and investigating the mind. In stressing the essential link between mentality and embodied and embedded activity the express aim of the original version of enactivism was to oppose and serve as an antidote to those approaches to mind that “take representation as their central notion” (ibid., p. 172). Radical versions of enactivism hold that organismic activity – engaging with features of environments in specifiable ways – suffices for the most fundamental kinds of cognition. In line with this, many researchers working on diverse topics in philosophy, psychology and cognitive science now regularly emphasize the non-representational but mindful interactions with the world and others.

E-approaches have generated a great variety of fresh proposals about many topics, including: perception, intentionality, emotion, memory, social cognition and consciousness (see, e.g., Stewart et al (2010) for an overview). These proposals break new ground precisely because they set out from a quite different place than cognitivism when it comes to thinking about the basic nature of mind. E-approaches reject I-thinking as a way of understanding the most fundamental and general forms of mentality, offering a new and quite different model of mind. Enactivism is inspired by the insight that the mental is to be understood in terms of engaged, embodied activity taking its inspiration from the self-organizing activity of living beings.

Thus, for example, Thompson (2007) tells us “life and mind share a set of basic organizational properties, and the organizational properties distinctive of mind are an enriched version of those fundamental to life. Mind is life-like and life is mind-like” (p. 128). Noë (2009) maintains that:

What biology brings into focus is the living being, but where we discern life, we have everything we need to discern mind ... You can't both acknowledge the existence of the organism and at the same time view it as just a locus of processes or physiochemical mechanisms (p. 41).

To understand mentality, however complex and sophisticated it may be, it is necessary to start by appreciating how living beings dynamically interact with their environments, both shaping and being shaped by those encounters: ultimately, there is no prospect of understanding minds without reference to on-going interactions between organisms and their environments. Followers of this new movement question – in more or less radical ways – the sharp divide between what is mindless, mechanical, dispositional and behavioural and the properly mental, representational, intentional and phenomenal.

Radical enactivism offers a different way of making sense of the intentional, end-directed character of organismic activity, one that does not assume the existence of contentful mental representations (see Hutto 2011a, Hutto and Myin 2013). Radical enactivism firmly sets its face against computationally inspired cognitivism and its I-conceptions of the mind – those that characterize mentality as essentially disembodied and de-contextualized. E-approaches reject the view that cognition is essentially an off-stage, behind-the-scenes computational and calculative activity that can be cleanly distinguished from the messy details of how organisms exist in and interact with their environments. As Froese (2012) observes:

What once seemed to be the greatest strength of [cognitivism], namely that its principles could be studied by computer science irrespective of biological or phenomenological considerations, has turned out to be its greatest weakness. Ultimately, ... the absolute logical distinction between cognition on the one hand and brain–body–world on the other prevents a genuine core articulation between the different disciplines from taking place. (p. 210)

In rejecting the idea that our primary engagements with the world are content-involving, radical versions of enactivism and embodied cognition assume that organisms can act, react and interact in psychologically pertinent ways without representing, reasoning or thinking about the world in

contentful ways. In sum, radical enactivism offers a fundamentally different vision of what unifies psychology than that proposed by cognitivism.

Tu quoque?

As a proposal for unifying psychology, doesn't radical enactivism encounter the inverse problem that cognitivism faces? Surely, it too suffers from a problem of scope: *some* mental activity must be too off-line, plastic and flexible to be explained without appeal to the manipulation of contentful attitudes with genuine representational properties. Arguably, we can go much further than cognitivists suppose before we need to introduce anything like mental states with representational content, but we can't go the whole way. If so, how can radical enactivism provide a properly unified and complete account of the nature of mental states?

Fans of radical enactivism recognize this problem. Certain human forms of cognition require (or seem to require) explanation of the capacity to adopt "the objectifying stance, i.e., the ability to neutralize the presence of existing meanings, and the symbolizing stance, i.e., the ability to impute additional layers of meaning" (Froese 2012, p 214). But the idea that this is a serious problem for radical enactivism is only apparent, not real. Radical enactivism need not, and does not, deny that there exist some forms of psychological activity that involve contentful states of mind. Nevertheless it assumes that sophisticated linguistic competence is a pre-requisite for having and attributing contentful mental states. Thus radical enactivism takes very seriously the idea that the sort of meaning-making and content-based capacities Froese describes emerge through actively engaging in shared linguistic practices.

In the human case, this is made possible by the development of sophisticated linguistic abilities that both enable and are enabled by, engaging in practices such as pretence, conversation and narrative story-telling. These make new and non-basic kinds of cognition, interpersonal relating and ways of understanding possible. This is how new forms of mentality (and capacities for understanding minds of this sort) – those that bear the hallmarks of folk psychology – come into being. Highlighting just this, Bruner (1990) argues convincingly that folk psychology is an instrument of culture. The Narrative Practice Hypothesis (NPH) is an advance on Bruner's idea (Hutto 2007). It

shows why Bruner's proposal deserves a place at the table in current debates about the basis of our folk psychological abilities (Hutto 2008).

The NPH says that the normal route through which we acquire our sophisticated capacity for making sense of and acting for reasons involves active engagement in narrative practices. It is by participating in narrative practices (in which the participants jointly attend to stories about people who act for reasons) that children gradually come to see the connections between mental states and thereby acquire their full-fledged folk psychological competence. These story-telling activities involve the use of special kinds of narratives – which are public artifacts. The narratives in question have a special content and structure, they are narratives whose subject matter makes explicit mention of how mental states figure in the lives, history and larger projects of their owners. The NPH acknowledges and makes much of the fact that:

There is a homologous relationship between folk psychological notions of mind and the traditional structure of narrative. In the tradition of story making and storytelling, agents are implicated in actions that are shaped by their intentional states and these actions have the objective of achieving certain goals (White 2004, p. 25, Bruner 1990).

This enculturation occurs over the course of later childhood, especially from age five years onwards. Through participating in narrative practices children gradually come by a mature understanding of intentional attitudes such as beliefs, desires, hopes, and their possible relations.

The NPH recognizes that folk psychology is a highly structured, conceptually based, competence. But it assumes that it is an environmentally scaffolded competence and, hence, implies that it does not have a wholly internal, neural basis. Rather, in line with Sterelny's (2010) scaffolded mind hypothesis the NPH assumes that "human cognitive capacities both depend on and have been transformed by environmental resources" (p. 472). The general idea of a socially scaffolded mind fits tidily within the general framework of enactivism. For when first explicating the idea that mind is best conceived as a kind of embodied action, the founders of enactivism, Varela, Thompson and Rosch (1991), defined embodiment in terms of an organism's various sensorimotor capacities – capacities embedded in and engaged with wider contexts not only of the biological kind but also of socio-cultural varieties.

Thus, despite agreeing with classical eliminativists that basic minds should not be understood using a model derived from folk psychology, radical enactivists need not assume that there is no mental activity of the kind folk psychology describes. The major difference is that eliminativists endorse an exclusive scientific realism, holding that science, and only science, tells us what's what and what there is. On this basis eliminativists anticipate and press for a total rejection of folk psychology if it is accepted that scientific psychology will mental states with content as the basic units of cognition. Eliminativism has been persuasive in some quarters. As a result of its influence folk psychology "hasn't fared that well in the arena of professional psychologies. It is lowly ranked and marginalized by these psychologies" (White 2004, p. 20). This is a symptom of the fact that folk psychology is viewed as being unscientific and naïve in its conceptions of mind. Folk psychology is thought to be a kind of domestic anthropology and thus "mired in biases of local culture" (see e.g., Stich 1983). Hence folk psychology explanations are thought incapable of getting at the *true* causes of action and thus they are "not up to the sophistication and rigor required by modern psychology" (White 2004, p. 20).

But there is no compelling reason to deny that some of us, at least sometimes act in ways and for reasons that folk psychology correctly describes (see Hutto 2011b). There is no justification for concluding that our everyday self-understanding is a kind of illusion (one to which we have – somehow – at best become sentimentally attached) from the fact that folk psychology has limited scope that it has no scope. Crucially, the first step in understanding folk psychology and seeing its value requires acknowledging that its explanations do not compete with causal explanations in the sciences. Folk psychology trades in normalizing explanations rather than causal explanations of the generative or productive sort (for a full discussion of this point see Hutto 2011b). Folk psychology explanations come in the form of (usually, appropriately short) narratives. Functioning as normalizing explanations, such narratives make actions intelligible by providing relevant contextualizing details – sometimes these require mention of features of the surrounding environment, the person's character or the considerations that moved them to act (i.e. moods, attitudes, the content of attitudes, etc.) or their larger ends and projects.

Noting this, and focusing on the regulative dimension of folk psychology, McGeer (2007) offers a corrective to the reigning view about the primary function of its explanations – i.e. the idea that folk psychology functions like a proto-scientific theory.

we overlook the way folk psychology operates as a regulative practice, moulding the way individuals act, think and operate so that they become well-behaved folk psychological agents: agents that can be well predicted and explained using both the concepts and the rationalising narrative structures of folk psychology (McGeer 2007, p. 139).

Importantly, McGeer highlights that folk psychological ascriptions and explanations do not take the form of low-level proto-scientific theorizing aimed at prediction and retrodiction. Rather, first and foremost, such explanations feature in the normative game of giving and asking for reasons. This inspires the stronger thesis that we only become agents who act for reasons by mastering that game. If this is accepted then the standard reasons for thinking that we should take folk psychology and its concepts as constructs of mental states less than seriously are undercut (see Hutto 2013). We can accept that contentful mental states, although not the basis of all cognition, are as real as anything else and that folk psychological explanations work perfectly well within their own domain, while still rejecting the idea that folk psychological constructs can serve as good general models for all of mentality.

In sum, like classical eliminativism, radical enactivism denies that basic mentality and cognition should be modeled in terms of propositional attitudes. But unlike classical eliminativism, radical enactivism allows that propositional attitude explanations are appropriate in some cases. This is to accept that some organisms have more than one way of getting around cognitively and that some – language users, at least – are capable of genuinely contentful, representational modes of thinking and reasoning (even if these have a quite different basis than cognitivism supposes).

In this respect radical enactivism is appropriately inclusive and thus a better potential unifier for psychology than cognitivism. For whereas cognitivism is unable to accommodate radical enactivist proposals about the basic nature of mindedness, radical enactivists can make room for appropriately modified cognitivist models of the mind, at least in some psychological domains.

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