

Daniel D. Hutto

## *Folk Psychology as Narrative Practice*

**Abstract:** *There has been a long-standing interest in the putative roles that various so-called 'theory of mind' abilities might play in enabling us to understand and enjoy narratives. Of late, as our understanding of the complexity and diversity of everyday psychological capacities has become more nuanced and variegated, new possibilities have been articulated: (i) that our capacity for a sophisticated, everyday understanding of actions in terms of reason (our folk psychology) may itself be best characterized as a kind of narrative practice and (ii) that acquiring the capacity for supplying and digesting reasons explanations might (at least normally) depend upon having a special training with narratives. This introductory paper to the volume situates the claims of those who support the narrative approach to folk psychology against the backdrop of some traditional and new thinking about intersubjectivity, social cognition and 'theory of mind' abilities. Special emphasis is laid on the different reasons for being interested in these claims about narrative practice and folk psychology in light of various empirical and philosophical agendas.*

I have thus endeavoured to preserve the truth of  
the elementary principles of human nature,  
while I have not scrupled to innovate upon their combinations.  
*The Iliad*, the tragic poetry of Greece, Shakespeare  
in *The Tempest* and *Midsummer's Night's Dream*,  
and most especially Milton in *Paradise Lost*, conform to this rule;

— Percy Shelley, preface to *Frankenstein* 1817

Correspondence:

Professor Daniel Hutto, Dept. of Philosophy, University of Hertfordshire, Hatfield, AL10 9AB, UK. Email: [d.d.hutto@herts.ac.uk](mailto:d.d.hutto@herts.ac.uk)

## 1. Folk Psychology and Narrative

Folk psychology (or FP) is a moniker devised by philosophers which is meant to designate a specific sub-section of our everyday talk of, and thought about, the mental.<sup>1</sup> It has certain, somewhat unfortunate connotations but its wide currency makes it useful. I believe it picks out, univocally, a phenomenon that should be of special interest to all. When used in an appropriately restricted sense, FP denotes — *at a bare minimum* — our everyday practice of making sense of intentional actions (i.e. our own and those of others) in terms of reasons, where this implies having a capacity for the competent invocation of propositional attitude talk.<sup>2</sup> So construed, FP (or FP *stricto sensu* as I call it elsewhere) is a sophisticated, high level capacity; it involves being able to answer a particular sort of ‘why’-question by skilfully deploying the idiom of mental predicates (beliefs, desires, hopes, fears, etc.).

Lots of folk — philosophically and scientifically minded folk, that is — are interested in FP and its related and supporting capacities — also known as ‘Theory of Mind’ (ToM) or ‘Mindreading’ abilities (as they are much better known in some circles). This volume brings together new work by some of these folk, who hail from a range of disciplines (anthropology, neuroscience, psychology, philosophy). The focus of this collective effort is to clarify, develop and challenge the claim that FP competence may be importantly, perhaps even constitutively, related to narrative practices. The *locus classicus* of this idea can be found in Bruner’s (1990) seminal work, but it has been acknowledged approvingly by others too, who have explored it with varying degrees of commitment (Sterelny, 2003; Gallagher, 2006; Gallese, 2007; Herman, 2008b; Zahavi, 2007). My own variant, worked out most extensively in Hutto (2008a), incorporates two logically distinct but complementary claims.<sup>3</sup>

- 
- [1] It travels under many other names too: common sense psychology; naïve psychology; *Homo sapiens* psychology; the person theory of humans; belief-desire psychology.
  - [2] The FP label can be used to name a phenomenon of much greater complexity. Hornsby is right to note that ‘Commonsense psychology ... is a pervasive subject matter, more easily gestured toward than precisely delimited: in practice it cannot be separated off from all the other subject matters that people engage with in everyday life. In the use of many philosophers, though, commonsense psychology is made to stand for something much more restricted than this’ (Hornsby, 1997, p. 4). Moreover in stressing that FP, as I have defined it, minimally incorporates an understanding of beliefs and desires I do not deny that FP can include more, i.e. that it is pluralistic (see Andrews, 2008).
  - [3] In fact, I had begun to toy with the idea that narratives might play this sort of role in an early paper of mine, long before I discovered and became inspired by Bruner’s writings on the topic. In its first, embryonic formulation the NPH (then the ‘narrative proposal’)

The first is a familiar sort of philosophical equation. It aims to remind us that FP is essentially a narrative practice — its exercise, always and everywhere, invokes our capacity to construct or digest narratives of a special sort (I do not claim that the truth of this equation is obvious).<sup>4</sup> We do this when exercising our FP capacities in both second- and third-person contexts.

The second claim, which I call the Narrative Practice Hypothesis (NPH), is an empirical hypothesis. It conjectures that the normal route by which children acquire their FP competence is through exposure to narratives of a special sort — those with a particular subject matter. I call this class of narratives ‘folk psychological narratives’. They are of the sort that make explicit mention of how mental states (most prominently, beliefs and desires) figure in the lives, history and larger projects of their owners, *inter alia*.

Just what are narratives and why might they be suited for this sort of work? As Scalise Sugiyama observes,

The literary consensus is that stories consist of character, setting, actions and events — linked temporally and/or causally — and conflict and resolution ... in my own reading of the oral narratives of a wide range of foraging peoples, I have yet to encounter a culture whose stories do not exhibit the same structural features as Western narrative (Scalise Sugiyama, 2005, p. 180; see also Herman, 2008a).

Folk psychological narratives, as I have defined them, therefore (apparently) have the right sort of content and structure for enabling FP understanding.

Moreover, along with many others, I assume that ‘Narrative is the vehicle of communicating representations of events between people by verbal means’ (Nelson, 2003, p. 32). This is important since when

---

amounted to the idea that ‘our ability to make psychological ascriptions and predictions is normally developed in the process of hearing, understanding and creating stories’ (Hutto, 1997, p. 70). Admittedly, I was aware that ‘At this stage the narrative proposal remains highly sketchy and speculative, but I maintain that it has peculiar advantages over its competitors in today’s philosophy of psychology’ (Hutto, 1997, p. 75).

- [4] In a draft version of a recent paper Currie (2008) observed that reason explanations do not obviously appear to be narratives. Thus, saying that I went out ‘to get milk’ in response to a query does not seem to count as ‘giving a narrative’. Here, I propose, appearances are deceiving. Because reason explanations function as normalizing, contrastive explanations, to give one’s reason in response to a question is, for the well trained, only to tell the most relevant part of a potentially much longer story (see Hutto, 2004, pp. 563–4; 2008a, pp. 11–12). Thus, in line with the polite etiquette of conversational implicature reason explanations are generally extremely compressed, truncated and elliptical. It does not follow that our capacity to produce such truncated explanations is not an essentially narrative capacity.

it comes to engendering FP competence other non-verbal mediums apparently come up short:

Imagine early *Homo sapiens* trying to tell the story of ‘Little Red Riding Hood’ through the medium of paint. Our artist immediately encounters difficulty in representing the thoughts, beliefs, and motives of the characters as well as the relationship between them .... A picture may be worth a thousand words, but sometimes a thousand pictures cannot match a few choice words (Scalise Sugiyama, 2005, p. 182).

As complex linguistic representations FP narratives can be objects of joint attention and thus the foci of conversational/narrative practices (in whatever particular verbal format they are conveyed). Still, it must be stressed that although folk psychological narratives will be the centre of attention in such engagements they do not engender FP competence on their own. According to the NPH, children develop this special ability by participating in narrative practices with the appropriate support and direction of others.

## 2. Rival Theories of the Basis of FP Competence

Over the years there have been only two notable proposals about the basis of our FP competence: Theory Theory (TT) and Simulation Theory (ST).<sup>5</sup> Defenders of TT hold that FP competence necessarily rests on a represented body of knowledge consisting of the laws or principles that comprise a core, naive theory of mind. When supported by auxiliary generalizations about what people typically do in a range of circumstances, this ‘theory’ is the putative engine of everyday interpersonal understanding, prediction and explanation. Simulation Theory (of which there are a plethora of versions) is TT’s primary contender. Its supporters hold that as our minds are already populated with the relevant mental states and the means of systematically manipulating them, it is possible to explain FP competence by direct appeal to modelling or simulative capacities.

Accordingly, we make sense of others by manipulating our own cognitive resources in imaginative ways to get results – crudely by imagining ourselves in the other’s situation and making relevant adjustments. This obviates the need for FP principles to be represented at all, at any level.

Construed as an empirical hypothesis about the basis of our FP competence proper, the NPH *directly* challenges those versions of TT and ST which posit dedicated mindreading mechanisms of various

[5] This is oversimplifying somewhat (especially as most theorists now promote hybrid TT–ST theories). But these niceties don’t matter for the purposes of this exposition.

kinds or childhood scientific labour to do *the same* explanatory work.<sup>6</sup> As such, the NPH must be distinguished from the softer claim that narrative engagements merely add finishing touches and refinements to pre-existing mindreading capacities that are best explained by these familiar theories. That proposal is hardly controversial. As Currie notes, 'An advocate of ST is likely to agree enthusiastically that narratives build up our folk-psychological competence, because they scaffold our early attempts to simulate people's practical and theoretical reasoning' (Currie, 2008, p. 217). Supporters of TT are certain to agree that narratives could play *that* sort of role, so long as there is no threat to the idea that *their* favoured mechanism is the core engine of FP understanding (e.g. see Zunshine, 2006).

The NPH is interesting precisely because it makes a stronger claim than the one cited above. It says that appropriate engagement in narrative practices is what normally engenders FP competence. Consequently, we don't just refine our pre-existing FP understanding by means of narrative engagements — on the contrary, we don't begin to exhibit FP skills proper until we've had the right sorts of encounters with the right sorts of narratives. Children are not FP competent until they have mastered certain narrative skills. Engaging in narrative practice is the *source* of our FP understanding.

To see matters clearly it helps to bear in mind that 'being FP competent' requires more than merely the capacity to harbour 'beliefs about other people's mental states, in particular about their beliefs and desires' (Currie 2008, p. 211). Such capacities are necessary but not sufficient for being a skilled FP practitioner (as argued in Hutto, 2007; 2008a, ch. 2).<sup>7</sup> It is worth labouring this point because unless it is grasped one will not properly understand and situate the NPH's explanatory ambitions. The NPH does not, by itself, seek to explain the basis of all of our nonconceptual capacities for recognizing, tracking or responding to psychological attitudes. Indeed, it does not even seek to explain how we acquire our first grasp of explicit concepts of

[6] See Fodor (1987), Goldman (2006), Gopnik and Meltzoff (1997) and Nichols and Stich (2003) for some representative examples. See also Hutto (2008b) for a detailed analysis of the basis of this competition.

[7] There has been a great deal of empirical evidence collected, ostensibly to settle the debate between ST and TT. Such evidence does not however touch the question of what lies at the basis of our FP competence. As I argue in Hutto (2008b), even if the evidence marshalled could decide if simulation or theory-based heuristics play an ineliminable role in certain third-personal mind-guessing tasks this would do nothing, by itself, to provide insight into the basis, origin or acquisition of FP-competence *per se*. This is because the existing experimental data at best shows that simulative or theory-like generalizations (or both) might come into play, as *additional heuristics*, when making third-person speculations about another's reasons for acting in certain cases (or types of cases).

these attitudes. While these capacities are clearly important they do not add up to FP as traditionally understood — i.e. as ‘networked’ or structured ways of understanding actions in terms of reasons. It is *this* that the NPH seeks to explain (and it is this that TT and ST originally sought to explain before their interests travelled somewhat). So, again, the core claim of the NPH is that childhood engagement with narratives engender a new-order, *integrated, articulate and explicit* capacity to make sense of actions by systematically deploying propositional attitude (and other) concepts. Participating in narrative practices enable us to make sense of actions by giving and asking for reasons; i.e. this sort of activity makes us FP competent.

This might seem to afford a natural way to divide the labour between those who postulate mindreading mechanisms of *a certain kind* and the NPH. For this to be a viable partnership it would be crucial that the properties of any hypothesized mechanism did not merely replicate the kind of explicit understanding of FP that the NPH assumes our narrative practices engender (i.e. the two should not offer competing accounts of the *very* same explanandum). This amicable arrangement seems quite plausible given, as Maibom (2003) has persuasively argued, that we must *in any case* strongly distinguish the kind of subdoxastic, tacit knowledge that many suppose undergirds the exercise of our FP capacities and that ordinary sort of platitudinal knowledge which gets expressed when we explicitly reflect on what that practice involves. The former is understood as a kind of representational knowledge that is allegedly causally efficacious in the production of the relevant kinds of thought and behaviour — but its content is consciously inaccessible, inferentially encapsulated and nonconceptual. That is not surprising since it is thought to constitute a body of tacit knowledge that is used by modular systems not their owners. But, crucially, so understood, it need not — indeed, ought not — be thought to resemble or embed, in whole or part, the sort of knowledge of FP that the folk struggle to describe when they try to articulate FP’s basic rules. We should no more expect this than we would expect everyday speakers to be conversant with the rules of transformational grammar that allegedly enable them to produce and detect well-formed sentences in their native tongue.

If we accept this it is at least possible to reconcile the NPH with the offerings of the traditional paradigm of mainstream cognitive science which has been pursued in a Chomskyan vein. Such an approach has emphasized the critical role played by internal, ‘innate’ knowledge-based mechanisms that call on represented bodies of information in enabling the performance of many tasks that are central to

social life — including, at the high end, our distinctive FP abilities. The point is that as long as we are clear about our targets, the NPH is consistent with the possibility that ToM or mindreading abilities of some sort are sponsored by subpersonal, representational mechanisms of some kind or another (the precise number, forms, and features of such putative devices remains a matter of intense debate). With a better understanding of the putative content such devices might operate with it becomes clear that the NPH is compatible, in theory, with the claim that the best explanation of the essential kit needed for engaging in ToM or mindreading activities (or our capacity to develop such abilities) will be specialized mental machinery that forms part of our native cognitive endowment; a gift from our immediate evolutionary forebears.<sup>8</sup>

This sort of rapprochement is a live theoretical possibility. But the truth is that the NPH sits on an interesting fault-line and forging this alliance with orthodox cognitive science is not something I recommend. While I do not doubt that there are many mechanisms, specialized and otherwise, that underpin our FP abilities and even our narrative capacities, I am hugely suspicious of the idea that these are ‘cognitive’ mechanisms, ‘mental’ organs or modules where this implies that they are ‘domain-specific systems of truth-evaluable mental representations that are innate and/or subject to informational restrictions’ (Samuels, 2000, p. 18).

To be precise, while I don’t doubt that there are many inherited mechanisms in the service of cognition (who would?), I do doubt that

---

[8] There is, however, a direct conflict between Maibom’s preferred account of the source of our knowledge of FP platitudes and that of the NPH. She casts such knowledge as theoretical (and hence subscribes to a version of TT) but also breaks with tradition by treating theories not as sets of law-like generalizations but as a collection of abstract models. As such FP knowledge only becomes representational when applied, by means of applying these models by forming hypotheses that apply to specific aspects of the world. Consequently, the true content of FP knowledge (and what the folk try to express when questioned about it) is really ‘the composite knowledge of theoretical models and hypotheses, and not of counterfactual supporting generalizations ... [hence,] there is no reason to think that folk psychological knowledge is tacit because unenunciative’ (Maibom, 2003, p. 313). Maibom provides one of the most plausible, sophisticated and attractive accounts of the nature of scientific theories I have yet to encounter. It treats them as ‘abstract systems that are not, in and of themselves, true or false of anything. [For] only when combined with theoretical hypotheses ... does the model feature in a truth-evaluable way’ (Maibom, 2003, p. 308). While that seems plausible enough, it is for this very reason that I would resist Maibom’s picture of FP competence as grounded in theoretical knowledge *per se*. In my view the exercise of FP competence does not essentially involve making hypotheses, although sometimes it does — e.g. in some third-personal tasks, when we speculate about other minds. If so it does not look as if FP knowledge is in essence theoretical nor does it take the form of ‘the content of a mentally represented body of information ... [that] functions in a subject’s cognitive economy’ (Maibom, 2003, p. 309).

such mechanisms perform their service by contentfully representing the domain-specific subject matter of their specialized concerns. Crucially, if we accept the argument that leads to recognition of Maibom's fork we are already close to reaching this conclusion. This is because, if she is right, the only kind of specialized knowledge that could putatively underpin FP abilities will not be of a sort that replicates or resembles the concepts and principles that we use when deploying such abilities. Even if we imagine that there are mindreading devices with representational contents the knowledge-base they depend upon will be nothing like that of the familiar FP sort.

More radically, it might be doubted that any such devices are genuinely 'knowledge-based' at all on the grounds that there is no adequate way to accommodate the idea that they contain any representational contents whatsoever (and it might be further doubted that there is any good reason to attempt such an accommodation). I have campaigned long and hard against representational theories for some time now, and I continue to develop and refine an alternative account — biosemiotics — which is a non-representational account of intentionality (Hutto, 1999; 2005; 2006; 2008a, ch. 3). Biosemiotics has a respectable pedigree as it is a theoretical adjustment of Millikan's biosemantics (regarded by many as the most promising naturalized theory of content available on today's market). Simply put, biosemiotics is biosemantics 'without the semantics'. It holds that basic intentional perceptual activity is a specific, evolutionarily-tailored way of interacting with the environment, but it is not, in any way, mediated by intensional 'contents' and so does not permit of a non-derivative analysis in semantic terms. Successful action requires informational sensitivity, i.e. a selective responsiveness to natural signs *in historically normal circumstances*.

Although organismic actions do not always succeed, the mere possibility of worldly misalignment does not necessarily imply (and hence need not be explained in terms of) the existence of semantic relations of truth and reference. In particular, no representations are involved/used in cases of basic perceptual responding (even though a competent observer of such activity can certainly talk of the mismatch in semantic terms). Biosemiotics provides a way of understanding the intentional aspects of on-line *perception* as exhibiting determinate 'directedness' without invoking representational contents.

This may smack of heresy or madness (or both). This is because, 'according to many, *any* functional architecture that is causally responsible for the system's performance can be characterized as encoding the system's knowledge-base, as implicitly representing the



system's know-how. If we accept current attitudes about the nature of cognitive representation, a non-representational account is not simply implausible — it is virtually *inconceivable*' (Ramsey, 2007, pp. 3–4). Talk about being 'in the grip of a picture'! But like Ramsey, whose excellent book reveals the serious problems faced by those struggling to explicate a viable notion of mental 'representation', I take this to be a clear indicator that something has gone 'terribly wrong' (Ramsey 2007, pp. 3–4).<sup>9</sup>

The time is ripe to review, with an open mind, what comes before and below the development of our full-fledged FP competence. Empirical work has revealed that the heuristics used in our normal everyday engagements are more diverse and complex than traditionally supposed. It is now quite obvious to all that sophisticated belief/desire psychology is not the fundamental or ubiquitous foundation of all social cognition (as some were once wont to claim). This throws up puzzles about the nature of higher and lower capacities for intersubjective engagement and understanding and how they are related (see for example overviews by Ratcliffe and Hutto, 2007; Costall and Leudar, 2009; Slors and Macdonald, 2008; Zlatev *et al.*, 2008).

For example, recent evidence suggests that some sort of capacity to track false belief emerges in human children much earlier than originally supposed. Thus even 15 month-old infants are able to pass at least one type of false belief task (Onishi and Baillargeon, 2005; Onishi *et al.*, 2007). Some have concluded from this that children may have an 'implicit' mastery of the concept of belief much earlier than previously thought (a fact masked because their performance is marred by other factors such as, executive control, processing problems, etc.). If so, from this vantage point, this may make it look as if there is less of a gap between low-level and high-level capacities for understanding action. Yet this conclusion must be balanced by recognition that these highly contextual, on-line modes of engaging with other minds are quite distinct from, and limited in comparison with, those of the advanced sort in which older children invoke the standard network of mental concepts in a systematic way (see Herschbach, 2008; Hutto, 2009b, p. 230).

Or, to take another case, it is not unusual to hear that *some* kind of action 'understanding' is engendered in even the most rudimentary

---

[9] Many will insist that representationalism remains the *only possible* way forward for cognitive science. As such, we should continue to pour in time and resources in the hope of making it work. To my eyes this looks rather like having a strategy for staying in Iraq but not for success in Iraq. Change we need.

forms of social interaction and intersubjective engagement. Indeed, it has been claimed that this is the primary function of mirror neuron activity (Rizzolatti and Sinigaglia, 2006; Sinigaglia, 2008). Defenders of such views also stress that: ‘this is a *pragmatic, pre-conceptual, and pre-linguistic* form of understanding’ (Rizzolatti and Sinigaglia, 2006, p. xi, emphases added). But it remains unclear exactly how to ground such talk of ‘understanding’ (or precisely what it implies) if one is not also prepared to assume that contentful mental representations exist, and to provide a workable theory of content that can explain and delineate their properties.

A more cautious strategy, which I recommend, would be to reserve attributions of ‘understanding’ exclusively for those language-based (and more specifically narrative-based) forms of intersubjective engagement that have their own special properties and complexities. And the truth is that we have other, more perspicuous ways of making sense of primary forms of intersubjective interplay. Elsewhere I have defended the idea that these depend on an organism’s having intentionally-directed *responsiveness* to the intentional attitudes of others, as perceived *in and through* their expressions (where the latter are understood as a special class of natural sign). Such encounters have distinctive phenomenal characters enjoyed by their participants, depending on the specifics of the particular engagement.

In all, there are strong reasons for not automatically construing primary intersubjective engagements as constituting or involving ‘mindreading’ (Zawidzki, 2008). Indeed, there are positive reasons to assume that they have features that preclude such a characterization. This is clearly seen, for example, in Gallagher’s arguments that instances of neural resonance should not be understood as involving simulation because they do not allow for the sort of two-step perception/attribution processes that certain versions of simulation require (i.e. there is no pretence/‘as if’ modelling stage, followed by subsequent attribution of a mental state stage). If there is no such two-step process he argues that neural resonance is best understood as a kind of direct perception — *provided* we ‘conceive of perception as an enactive sensory-motor phenomenon’ (Gallagher, 2007, p. 358, Gallagher and Zahavi, 2008, pp. 178–9).<sup>10</sup>

[10] While this argument works against the idea that neural resonance could be a form of ‘mind-reading simulation’ it does not defeat the idea that it is any kind of ‘mental simulation’. Goldman stresses this important distinction in his work, invoking notions such as ‘mirroring’ or ‘mental matching’: ‘When mental matching occurs by means of a regular causal pathway I will consider it an instance of mirroring — an instance of mental simulation .... But it isn’t yet ... an instance of simulation-based mindreading. What more is

Although this positive proposal is still very much up for discussion, what should not be overlooked is that there is an emerging consensus that the most basic forms of intersubjective engagement do not and could not constitute ‘mindreading’ activity — not even that of a low-level sort (see Gallese, 2007; Gallagher, 2007; Gallagher and Zahavi, 2007; Goldman, 2006; Gordon, 2008)!<sup>11</sup> Crucially, such activity does not involve making attributions of contentful mental states to others.

It can no longer be ‘taken for granted’ that our capacity to engage with others successfully is predicated on a capacity to represent another’s mental states (or their contents). More than this, there is a pressing need for new ways of interpreting and characterizing these various capacities. It is simply no longer obvious that the traditional theories, TT and ST, offer us the best tools for doing so. This helps the fortunes of the NPH, because once we see this, it is even clearer that we have no good reason to assume that TT and ST are the right tools for making sense of our more sophisticated capacities: it is left ‘entirely open what form a full-blown system of intentional attribution might take’ (Borg, 2007, p. 10).

While some basic capacities for social navigation and interaction are undoubtedly built-in, others — perhaps even the core aspects of FP — may be acquired or soft-assembled in ontogeny, where the drivers of this development will be socially scaffolded engagements and not active scientific theorizing (Carpendale and Lewis, 2004; Garfield *et al.*, 2001). My own view is that primary forms of social interaction are about shaping others, being ‘transformed’ by and ‘transforming’ others through unprincipled embodied engagements. The nature of intersubjective engagements become elaborated and extended in complex ways, especially in the human case, with the advent of capacities for non-linguistic joint attention and narrative practices. These enable sharing with and understanding others.

This fits with those approaches to intersubjectivity and social cognition that emphasise its shared, interactional basis and downplay the contributions of the individual and the specifics of their inherited

---

required for there to be mindreading? ... Mindreading involves the attribution to a target’ (Goldman, 2006, p. 133). Gordon too has recently emphasized that ‘there is no conflict between the simulation theory, *once it is freed from certain constraints carried over from theory theory*, and Gallagher’s view that our primary and pervasive way of engaging with others rests on “direct”, non-mentalizing perception of the “meanings” of others’ facial expressions, gestures, and intentional actions’ (Gordon, 2008, p. 219, emphasis added).

[11] Even those who still talk of understanding action at this level admit that this ‘immediate understanding of the acts of others’ is *not* based on mentalizing (Rizzolatti and Sinigaglia, 2006, p. 131). Indeed, they tell us that there is ‘no neural mechanism that explains mindreading’ (Rizzolatti and Sinigaglia, 2006, p. 130).

capacities and mechanisms (Reddy and Morris, 2004; Hobson, 2002; De Jaegher and Di Paolo, 2007). Approaches of this kind stress the importance of interaction-driven embodied engagements and the role of social institutions and practices in shaping, sharing with and understanding others. Although not yet mainstream, these alternatives, which revive and promote core phenomenological and Wittgensteinian insights, are gaining ground.<sup>12</sup> For the reasons stated above, their most interesting, and strategically viable versions ally themselves to revolutionary movements in cognitive science that also *directly* challenge its ‘cognitivist’ and ‘representationalist’ roots (Hutto, 2008c,d).

### 3. Empirical Implications and Standing

For those willing to assume that we — i.e. we, adult *humans* — make sense of actions by using folk psychology, the NPH offers fresh answers to the million dollar questions: How exactly do we do it? How are such capacities exercised? How did we first come to do it (What are FP’s phylogenetic origins)?, How do we reliably come to be able to do it? (What is FP’s developmental profile in ontogeny; What are FP’s developmental precursors)?, And while, if true, it precludes the possibility that children and animals use FP proper, it raises important questions in comparative and developmental psychology about how other species and pre-verbal infants manage without it — e.g. whether they ‘make sense’ or ‘understand’ actions in everyday contexts by invoking or using anything that even approximates to FP (and if so, which species, and to what extent?).<sup>13</sup>

Ultimately, to take the NPH seriously requires putting it to the test. That would require looking again at the relevance of certain well-known empirical data and seeking novel varieties — perhaps even requiring new methods for collecting and assessing it. For example, ideally, comparative data on the parenting, schooling and general ‘narrative’ practices and explanatory tendencies of specific cultures is

---

[12] There has been, for example, a rapid growth in special issues and edited volumes dealing with and promoting these sorts of approaches. Some recent titles include (to mention but a few): *Folk Psychology Re-Assessed* (2007), *The Shared Mind* (2008), *Alternatives to Theories of Mind* (2008), *Against Theory of Mind* (2009).

[13] There has been explosive interest in these sorts of questions of late. This has much to do with the development of new techniques and exciting findings, such as functional Magnetic Resonance Imaging (fMRI) and the much publicized discovery of mirror neurons. Both have helped to promote the development of new and fertile sub-fields, such as social neuroscience. But interest in the NPH and the narrative basis of FP is also fuelled from other sources, e.g. by the pressing practical and clinical demands of psychotherapy, such as investigations into the neuroscience, nature and treatment of autism and schizophrenia (see, e.g., Belmonte, 2007; Sparaci, 2008).

wanted. The need for new investigations is provoked by questions such as: When might the relevant narrative practices have emerged in our pre-history? What form did they take initially and subsequently? How do they relate to our more basic narrative competencies (and what do these look like)?; What is the nature and source of the latter? Are these competencies realized in our neurological hardware or are they more soft-wired (and, if so, how)?

Cross-disciplinary cooperation is a must if genuine progress is to be made in addressing such queries. Even though precise answers are a long way off, it is worth saying a word or two about the empirical plausibility of the NPH as things stand now. Apparently, its central claim that FP competence develops in stages, as children become more sophisticated in their narrative abilities, sits well with known developmental facts, especially since at critical points the developmental schedules overlap in important ways.

Human children exhibit a special responsiveness to the intentional attitudes of others early on. They selectively attend to goal-directed agency and animacy (circa 3 months); human actors as opposed to mechanical 'agents', goal-related actions as opposed to mere movements and the methods/paths taken to achieve these (circa 6–9 months); meaningful segments of complex behaviour streams (circa 10–15 months); intentional actions as opposed to incomplete/unintentional behaviour (circa 18 months) (Baldwin *et al.*, 2001; Baird *et al.*, 2000; Meltzoff, 1995). A major addition to this repertoire is development of the capacity for joint attention (Bard and Leavens, 2008). Basic forms of co-referential shared interactive activity (such as pointing, gaze following and social referencing) are strongly in play by 9 months, but full-blown, pre-linguistic joint attention is generally thought to start properly by the end of the first year and is normally well established by 18 months. These capacities, which are impressive in their own right, are transformed and extended in important ways after children become conversant with, and competent users of, language, which occurs during the course of the second year. At this point they are becoming budding conversationalists. This not only gives them new tools and opportunities for understanding the intentional attitudes of others in more sophisticated, linguistically-framed ways, it absolutely demands it of them.

Moreover, it is empirically well documented that this more sophisticated understanding of sententially-mediated propositional attitudes also unfolds in stages. For example, children have explicit command of the concept 'desire' roughly six months before that of 'belief' (Bartsch and Wellman, 1995; Harris, 1996). If we take false-belief

tasks as a reliable indicator of (at least) a first pass explicit understanding of belief, then it is clear that such understanding can arrive as late as the fourth year of life. This is important, for if an understanding of belief is necessary but not sufficient for FP competence, it must be assumed that the latter emerges later still.

How does all of this compare with the development of narrative competence? Well, we know that:

the ability to generate and process narrative is not limited to the exceptionally intelligent, nor is any formal instruction necessary for the acquisition of this faculty. Studies of Western children indicate that storytelling ability is reliably developing; the ability to tell stories emerges between the ages of 2 and 3 (Sutton-Smith, 1986, p. 69; see also Brown & Hurlig, 1983; Mancuso, 1986), and children as young as 30 months can distinguish between narrative and non-narrative uses of language (Scalise Sugiyama, 2001, p. 3; 2003, p. 392).

Encouragingly for the NPH, it seems that our FP competence comes on in stages that march in step with the growth of narrative ability. Although at the start of their story-telling careers (between the ages of 2 to 4 years) children borrow heavily from others, they become progressively better and more autonomous in the exercise of their narrative skills over time (Nelson, 2003, p. 31; 2007). The process is complex. Minimally, it requires developing such basic capacities as selecting a topic and serializing events, but ultimately it also involves keeping track of degrees of agency, multiple motives and perspectives, etc. (Bamberg, 1987, and in press). This requires active engagement on the part of the child and the support of others.

But over time, as children become more cognitively, communicatively and linguistically capable, they are better able to cope with and understand multiple perspectives; divergent points of view; the idea of stable persons with changing characteristics; what needs mentioning (and what can be taken for granted); descriptive language of the sort that enables ever more subtle distinctions in tense, complex use of names, and so on. New work in developmental psychology, which charts the ways in which children's more mature narrative productions depend upon, incorporate and extend pre-narrative competencies developed in earlier pretend play practices, helps us to better understand this process.

pretend play, especially sociodramatic role play, highlights and fosters children's abilities to understand and coordinate multiple mental perspectives ... the plots of preschoolers stories are usually more complex and sophisticated than those of their pretend play narratives ... however at first these characters tend to remain generic types, described with

little detail or psychological depth ... In both their pretend play and their storytelling, young children *gradually master* the ability to construct a full narrative scenario (Nicolopolou, 2007, pp. 260–1, emphasis added; see also Sinha, 2005).

Importantly, it has been observed that ‘the age of 5 years seems to mark a turning point in children’s narrative skills, with further developments continuing to take place throughout the school years’ (Tomasello, 2003, p. 276). This fits well with NPH’s conjecture that the capacity for integrating more basic capacities to enable the ready deployment of mature FP skills only emerges relatively late-in-the-day, a good while after the explicit false belief tests are reliably being passed. It is interesting, in this context, that ‘Proponents of the dominant theories have been notably quiet about what happens in development after the child’s fifth birthday. However research that explores whether 5-year-olds can use simple false belief knowledge to make inferences about their own and other’s perspectives finds that they singularly fail to do so’ (Carpendale and Lewis, 2004, p. 91). To take but one example,

children who understand false beliefs will, for example, realise that Little Red Riding Hood does not at first know that the wolf is dressed up as her grandmother. Some of these same young children, however, fail to correctly draw the emotional implications of this false belief and mistakenly state that Little Red Riding Hood would be afraid of her grandmother (Racine *et al.*, 2007, p. 481).

Moreover, it is natural to suppose that the development of FP competence and a growing narrative sophistication not only travel together but are mutually supporting. The process of producing and consuming more complex FP narratives feeds upon itself and thus extends FP competence in interesting ways, rendering it more nuanced and rich. Modifying a claim by Scalise Sugiyama, the basic idea is that there exists ‘a feedback loop between storytelling and [FP competence]: storytelling may help build or strengthen [FP competence], which in turn enriches storytelling, which further enriches [FP competence], and so on’ (Scalise Sugiyama 2005, p. 189).

The NPH is not only consistent with these ontogenetic facts, it holds up well in light of what we know of inherited capacities and pre-history. In Hutto (2008a) in an attempt to defend the NPH against a specially designed, FP-targeted variant of the ‘Poverty of the Stimulus’ argument I was forced to speculate about the origins of FP narratives and why they are so pervasive in human culture. Those were mere speculations but I have since discovered some fascinating work that helps to place them on firmer ground.



Calling on a wealth of anthropological and ethnographic evidence it has been proposed that narratives may function to impart vital information to listeners (Scalise Sugiyama, 1996; 2001; 2003; 2005). This is plausible given that humans have a voracious natural appetite and ability for telling and consuming stories.<sup>14</sup> Also it is arguable that ‘recurrent themes in world literature are rooted in adaptive concerns’ (Scalise Sugiyama, 2003, p. 391). For example, narratives the world over are replete with trickster stories, which emphasize and warn of the dangers of free-riders and the fact that taking what others say and do at face value can have heavy consequences (see Scalise Sugiyama, 2008; Hill, 2008).

Accepting the information-imparting thesis should not lead us to deny that engaging in narrative practices has other functions too. For example, it is easily partnered with the norm-imparting thesis according to which narratives help, through their content, to ‘delimit behavioural boundaries by providing examples of appropriate and inappropriate behaviour and their consequences’ (Scalise Sugiyama, 2005, p. 126). This connects with the plausible hypothesis that FP serves a primarily regulative function (McGeer, 2007; Zawidzki, 2008).

Importantly, in defending the view that stories impart crucial information in hunter-gatherer societies, Scalise Sugiyama notes that:

The ethnographic record accords with the folklore record, providing evidence that foragers use narrative as a means of acquiring and storing fitness-related information ... Blurton-Jones and Konner (1976, p. 338) found that the !Kung often ‘would begin to discuss some point among themselves and *recount observations* to each other’ ... Finding little direct transmission of information between !Kung men Blurton-Jones and Konner concluded that ‘Perhaps verbal transmission of information is indirect *through people telling the story of their day’s excursion* as opposed to direct lecturing’ (Scalise Sugiyama 2001, p. 10, emphases added)

By engaging in this sort of practice ‘Men increase their hunting knowledge not only by observing other hunters but by listening to them “tell the hunt” (that is, recount their hunting experiences)’ (Scalise Sugiyama, 2005, p. 190). If so, this dovetails beautifully with the core proposal of my modified version of Sellar’s ‘myth of Jones’. In chapter 12 of Hutto (2008a), I suggested that FP understanding is likely to have originally come into being along with practices in which

[14] Scalise Sugiyama reports ‘stories are strikingly memorable. As Sperber (1985) notes that although the story “Little Red Riding Hood” is much more complex than a 20-digit number, the story is much easier to remember’ (Scalise Sugiyama 2001, p. 8).



story-tellers learned to give *public expression* to their thoughts and, more specifically, their reasons for acting. This account of the genesis of FP competence looks a good bet if recounted narratives of our hunter-gather ancestors contain ‘descriptions of problems and of character’s plans for solving problems’ (Scalise Sugiyama, 2001, p. 9).

In emphasizing these facts about human narratives and our capacities to produce/digest them, Scalise Sugiyama adopts an evolutionary psychology approach and assumes the unproblematic existence of ToM mechanisms. In this, like many others, she is inclined to follow Tooby and Cosmides in supposing that ‘We are “mindreaders” by nature ... Humans evolved this ability because, as members of an intensively social, cooperative, and competitive species, our ancestors’ lives depended on how well they could infer what was on one another’s minds’ (Tooby & Cosmides, 1995, p. xvii). I won’t rehearse my reasons for doubting the existence of such devices yet again. I am more interested in assessing her claim that our narrative capacities may also have been ‘selected for’. She writes:

While it is impossible to pinpoint the birth of narrative, a number of lines of evidence indicate that it emerged in the Pleistocene, which would make [our capacity/appetite for] narrative a sufficiently ancient phenomenon to have developed through a process of natural selection (Scalise Sugiyama, 2001, p. 3).<sup>15</sup>

But, as far as I can see, the dates do not quite allow for this. For she notes:

Given that modern humans have been in existence for approximately 100,000 years and are the only hominid species or subspecies known for certain to exhibit storytelling behaviour, we can safely say that oral narrative is a product of our hunting-and-gathering past, likely to have emerged between 30,000 and 100,000 years ago (Scalise Sugiyama 2001, p. 234).

That seems right. But if it is true, as Scalise Sugiyama maintains (and I concur), language is a necessary (but not sufficient) condition for the existence of narrative practices, then something does not add up here.<sup>16</sup> The trouble is that if narrative capacities were universally and

[15] The simple truth is that ‘We have no information, of course, on how long humans have been storytellers. For all we know, this might be a very ancient use of language ... We have no way of assigning relative dates to, say, the emergence of our knowledge of the future, of other minds, and of full language’ (Sterelny, 2006, p. 38).

[16] She writes ‘the practice of story-telling is ancient ... Language, an obvious prerequisite for storytelling, is likely to have emerged by 50,000 and possibly 250,000 years ago... although the oldest known narrative (The Epic of Gilgamesh) dates back only 5,000 years ago’ (Scalise Sugiyama 2001, p. 233).

uniformly selected for in our species then this must have occurred sometime before 100,000 b.p. (or thereabouts). This entails that narrative practices will have had to have been well-established for a long, long while. Put otherwise, if narrative practices (which are dependent upon the use of complex language) only showed up late in the day (after the designated deadline) then it isn't possible that mechanisms fashioned specifically to support FP competence will have been selected for (unless we are prepared to tolerate parallel biological evolution in our species over a very short timescale).

But what if the generally accepted dates on the emergence of complex language are wrong (i.e. out by a hundred thousand years or so)? What if complex language emerged much, much earlier than many suppose, early enough to have been in place and used in sophisticated ways to support conversational narratives long enough before the Diaspora out of Africa? Wouldn't that revive the prospects (or at least the possibility) that sophisticated FP-supporting devices might have evolved during our pre-history, as adaptations, and that they now form an important part of our cognitive inheritance?

If we are prepared to make those adjustments, the answer is 'Yes'.<sup>17</sup> Perhaps our natural proclivity for and skill with FP narratives just is more ancient than generally supposed. Perhaps we inherited dedicated and specialized mechanisms for producing and consuming narratives, even if the mechanisms that enable this do not embed a 'theory of mind' *per se*. The NPH tolerates this adjustment, as long as it remains true that the normal development and function of these inherited FP narrative capacities depends, in normal cases, on members of our species having the appropriate exposure to stories with the right content and structure and where the FP narratives themselves are conceived of as readily available features of the normal human environmental niche — i.e. as staple sociocultural productions or items (in whatever particular format they are conveyed).

On this sort of model, a partnership is imagined to exist between certain inherited capacities and certain normal, reliable features of human environments, including, especially, cultural practices and artifacts — features that critically shape our cognitive possibilities. To think of narratives as playing this sort of role in engendering FP

[17] This might seem to lend believers in ToM mechanisms some hope. It would afford them protection against one argument I advanced in Chapter 11 of Hutto (2008a). But this would only make their proposals viable if they did not suffer in other, yet more fundamental ways too. As I argued in section 1, a fatal problem for those who take such conjectures seriously is their inability to specify the content such mechanisms are meant to have or to explain how their posited mechanisms get that content in the first place (see Hutto, 2008a, ch. 3, 4, 5 and 8 where this problem is discussed at length).

competence fits snugly with the suggestion that ‘the co-evolution of cognition with culture has built a mechanism that results in the cumulative change of human environments ... Humans are niche constructors: we rework our own environment: think of shelters and clothes; the domestication of animals; the use of tools’ (Sterelny, 2006, p. 37). There is every reason to suppose that narratives are a distinctive and characteristic feature of human cultural niches, just as dams are for beavers.

What should be rejected if we abandon the idea that biologically-inherited mechanisms exist, which literally contain our ‘theory of mind’, is that ‘the role of experience is merely to select from a menu of pre-specified alternatives by setting parameters to their appropriate settings’ (Sterelny, 2006, p. 32, see also p. 26). Thus, even in speculatively entertaining the possibility of a more nativist-friendly version of the NPH, it is important that we do not become seduced into imagining that the role of local narrative productions in engendering our FP skills could be reduced to merely that of providing triggering ‘inputs’ in a pre-built ToM jukebox — one gifted to all members of our species. This familiar, Chomsky-inspired rendering of the modularist proposal is neither the only, nor the best, theoretical option on the market.

It must be remembered that, even if we put aside the very serious worries about the source and nature of the ‘representations’ that ToM devices putatively use, there are other objections to evolutionary psychology’s basic paradigm that make its standard offerings suspect (Dupré, 2001; Buller, 2005; Richardson, 2007). In particular, we should not be persuaded of the need to accept some version of an adaptationist story about our narrative capacities simply because they appear to be culturally universal traits, for it is entirely possible that ‘some cultural universals may have emerged without having been generated directly by evolved psychological mechanisms’ (Buller, 2005, p. 467).

To demonstrate this, Buller convincingly shows that we can, for example, potentially explain universal human traits by appeal to an epidemiological spread from the original ancestral population (i.e. that from which we all descended). On these grounds he concludes that ‘the existence of a cultural universal may signal only a common origin of all the world’s cultures, rather than a common psychological adaption of all the world’s peoples’ (Buller, 2006, p. 468).<sup>18</sup> Richardson, who also promotes a wholly Darwin-friendly story about human

[18] Indeed, in arguing for the idea that minds are continually adapting (as opposed to having been pre-adapted) at both the population and individual levels, he claims ‘the idea of a

evolution and defends the idea of common descent, also complains that ‘evolutionary psychologists tend to assume that the *only* explanations will be in terms of adaptation’ (Richardson, 2007, p. 11). He also supplies ample evidence that they are wrong to assume this. While this hardly settles matters, it reveals that there is more than one credible way of understanding how narratives might have originated and have come to play a critical role in the development of our mature FP competence.

#### 4. Philosophical Considerations

Given their concerns, many analytic philosophers are likely to be unmoved if the familiar psychologicistic theories about FP’s basis, TT and ST, should go to the wall.<sup>19</sup> Their primary interest in FP only extends to constitutive questions about the content and status of mentalistic talk. As such, it matters little to them which mechanisms happen to make such talk possible. Thus it may not seem that it would affect their projects much (if at all) if FP competence should turn out to be fostered by narrative engagements or not. That is an empirical matter. Hence, as a developmental hypothesis and conjecture about the origins of such talk, the fate of the NPH (whether true or false) will have little impact on their philosophical agenda. All that matters is what we can know, *in advance*: that FP exists as a systematic and distinctive way of making sense of reasons for action. The existence of FP practice in no way depends on the success or failure of any particular theory about the mechanisms that underpin it.

I think we ought to be cautiously prepared to agree at least this much (though it has been challenged — see Ratcliffe, 2007; 2008; 2009 [this volume]). But what cannot be assumed without argument is that FP is essentially theoretical in nature, though this is precisely what many philosophers do assume. But that is a constitutive claim that can be challenged. It is important to distinguish this version of TT from those that advance empirical hypotheses about the basis of our FP competence. Thus Braddon-Mitchell and Jackson observe that accepting that knowledge of FP constitutes a form of implicit theory ‘does not, of course, mean that we must have a theory ... explicitly worked out in our minds, but somehow hidden from view and guiding

---

universal nature is deeply antithetical to a truly evolutionary view of our species’ (Buller, 2006, p. 419).

[19] I have only concerned myself with the ‘inherited mechanism’ versions of these theories here. I discuss other variants, such as the idea that our ‘theory of mind’ is forged by active childhood theorizing, in detail, in Hutto (2008a, see chapter 9).

our actions from its hiding place' (Braddon-Mitchell and Jackson, 2007, p. 63). Rather adopting such a view need only imply that 'there is *a theory to be had in principle* about what the regularities underlying [FP] judgements are' (Braddon-Mitchell and Jackson, 2007, p. 63, emphasis added). In adopting this line they endorse a position that trades under the name 'external theory theory' (or ETT). This is the view that FP is not 'an internally represented knowledge structure or body of information; it is not part of the mechanism that subserves [our everyday abilities]. On these readings, folk psychology "ain't in the head"' (Stich and Ravenscroft, 1996, p. 128).

This would entail that it is at least theoretically possible to describe or articulate the operative principles at work in FP practice, 'from the outside' as it were. It may seem obvious that it should be possible to identify, derive and articulate FP core principles, at least in principle. But it has proved notoriously difficult, even for professional philosophers to achieve more than a modicum of success in this enterprise (Maibom, 2003, p. 304). This may be because philosophers have misunderstood the structure of such knowledge. Certainly, those seeking to engage in this sort of Lewisian programme acknowledge that

the collection of 'platitudes' is likely to be large and ungainly, [such that] we might reserve the label 'folk psychology' for a set of more abstract generalizations — a 'theory' if you will — that systematizes the platitudes in a perspicuous way and that (perhaps in conjunction with some other commonly known information) entails them (Stich and Ravenscroft, 1996, p. 127; see Lewis, 1972).

Leaving aside the question of whether what is proposed is *really* possible, what should not escape our notice is that this rendering of TT has extremely weak commitments – so weak in fact that it seems incapable of supporting the claim that FP is essentially theoretical in character. After all, is there *any* practice that would not admit of a similar treatment? Does the mere possibility of distilling such descriptions equally convert all other practices (e.g. angling, trading, etc.) into theoretical ones?<sup>20</sup> To fully grasp the central worry it is crucial that we understand the nature of this imagined product aright. For it cannot be

---

[20] A common thought is that FP has other, rather special features that make it theoretical in nature. Specifically, many characterize it as involving the positing of causally efficacious, internal mental states in order to yield third-person predictions and explanations of the behaviour of others. However, this would only make FP essentially theoretical if we assume that this is its primary or only function (as opposed to being something it might simply be used for in some contexts). I have argued elsewhere that the assumption that FP operates primarily to serve this sort of function (which requires endorsing what I call 'the spectatorial assumption') does not hold up under scrutiny (Hutto, 2004; 2008a, ch. 1).

assumed without further argument that what would be derived would be a FP ‘theory’ in any interesting or pertinent sense.

We might doubt this on several grounds. Firstly, the process of derivation hardly seems to constitute genuine theoretical activity. Although it would require reflecting on what we do and how we do it, the task seems to bear the hallmarks of being essentially descriptive rather than hypothetical in nature. A major part of divining and articulating the core operating principles of FP would seem to demand charting the constants and variables of FP. This would require attending to FP *as it is used in practice*. If successful, the result would be a description of an abstraction — i.e. a formal rendering of some general rules and features at work in that practice. There is room to question if that sort of product is really best described as ‘a theory if you will’. Secondly, and pivotally, even if such an artifact could be successfully obtained it would *not* be a description of the tacit ‘set of principles’ *used by* FP practitioners in their daily affairs. Hence, even if it is possible that the basic ‘operating principles’ might be articulated in theory, this would hardly establish that FP practice itself (from which the relevant formalization would be derived) is essentially theoretical or that it embeds a theory as such.

If properly conducted this sort of project would be akin to an attempt to capture, in an appropriate meta-vocabulary, ‘what one must *do* in order to *use* various vocabularies and so to count as *saying* or *thinking* various kinds of things’ (Brandom, 2006, p. 3). As Brandom notes, this would be a significant pragmatist extension of the analytic project of understanding the semantic relations that hold between different vocabularies.<sup>[21]</sup> The result would be a description of what it is necessary for someone to do in order to make competent use of a certain vocabulary for a certain purpose. Hence, this way of understanding the project of codifying FP ‘principles’ (and the philosophical purpose of doing so) must be distinguished from another project, familiar to analytic philosophers — that of charting the patterns of assent and dissent associated with answering specific questions in order to reveal ‘folk’ patterns of judgment on specific topics.<sup>[22]</sup> This

---

[21] Brandom’s own version of analytic pragmatism gets its inspiration from Sellars and takes seriously the important challenges facing programmatic versions of analytic philosophy, as laid down by Wittgenstein.

[22] There is a serious problem for the idea that philosophy, taking the form of conceptual analysis, could rely on the appeal to intuitions in order to adjudicate between philosophical theories concerning important topics (e.g. the nature of mental causation, consciousness, etc.). For the idea is that such arbitration will rest on ‘appeal to what seems most obvious and central [about the concept in question], as revealed by our intuitions about possible

sort of product might be understood as a 'theory'. Dennett is right to suggest that:

It is tempting to interpret the field of philosophy of mind as just this endeavour: an attempt at a rigorous unification and formalization of the fundamental intuitions the folk manifest in both their daily affairs and in reflective interaction with the questioning anthropologists. 'Consult your intuitions,' say the philosophers. 'Do they agree with the following proposition? ...' And if the task were done well, it would yield a valuable artefact for further study: the optimized 'theory' of late-twentieth-century-Anglophone folk psychology (Dennett, 2006, p. 33).<sup>23</sup>

But FP as I have been using the term does not amount to the sum total of what 'the folk' are inclined to say in response to certain probative questions. If we think of FP as naming a familiar practice then divining the principles of FP in action, when it is performing its usual office of making sense of intentional action, is not the same as determining what the folk collectively happen to think about FP-related topics (as we might elicit and reveal the content of their speculations about the behaviour of macroscopic items in order to discover their 'folk physics').<sup>24</sup>

For this reason not every 'folk psychological' claim commands the same degree of epistemic risk. Some are positively more flatfooted precisely while others will involve significant speculation. For example, compare A and B below:

- A. That there is something-it-is-like-to experience textures or colours (and this alters systematically with bodily/environmental changes in expected ways);

---

cases' (Jackson, 1998, p 31). But there is a serious and glaring problem with this proposed methodology since, if we follow those who endorse the existence of *only* an external TT then there is no separately existing shared, underlying folk 'theory' that could play the causal-explanatory role of justifying or making true our intuitive judgments. At best 'FP theory' is nothing more than a name for a distinctive set of intuitive patterns of assent and judgement about everyday psychological matters. This problem has not gone unnoticed. As Williamson observes: "'Intuition" plays a major role in contemporary analytic philosophy's self understanding. Yet there is no agreed or even popular account of how intuition works, no accepted explanation of the hoped-for correlation between our having an intuition that P and its being true that P. Since analytic philosophy prides itself on its rigor, this blank space in its foundations looks like a methodological scandal. Why should intuitions have any authority over the philosophical domain?" (Williamson, 2007, p. 215).

[23] Thus: 'My intuitions about possible cases reveal my theory ... Likewise, your intuitions reveal your theory. To the extent our intuitions coincide with those of the folk, they reveal the folk theory' (Jackson, 1998, p. 32).

[24] For a useful and illuminating discussion of this precise point see Sorell (1991, p. 140–50). Sorell makes an excellent case for believing that there is equivocation in the arguments about FP precisely because 'a number of different things can qualify as folk psychology' (Sorell, 1991, p. 144).

- B. That I can experience everything, in full detail, all the way out to the periphery of my visual field.

Claim A is not on a par with that of B. Observing this justifies pursuing a ‘maximally minimalist’ approach when seeking to characterize the implications of FP practice. Consider the utterance that could result from the exercise of our FP competence:

- C. Jack and Jill went up the hill because they *wanted* to fetch a pail of water and they *believed* that they would find water at the hilltop.

What is one committed to in saying this? Some hold that snippets of everyday mentalistic parlance like this imply a commitment on the speaker’s behalf to the existence of complexly inter-related, causally efficacious, inner mental states — states with special representational properties that are hard to explain naturalistically. Famously, Fodor thinks this and many have followed his lead (Fodor, 1987). If this is right then the folk have rather hefty metaphysical commitments, which they are probably not aware of. This is made immensely more plausible by the fact that it is not claimed that the folk *know* that they are so committed, only that they are. Apparently in metaphysics, as in law, ignorance is no defense.

If ordinary FP claims, such as C, really entailed commitments of this kind then the truth of any particular FP utterance would depend on certain sophisticated ‘theories’ in the philosophy of mind (e.g. concerning representationalism; mental-property causation; Humeanism about mental states,<sup>25</sup> etc.) being true. Indeed, special excitement was injected into analytic philosophy of mind when worries were raised that ordinary FP talk about the mental may be systematically false. Proponents of eliminativism predicted that developments in cognitive science would show (even if only over the course of geological time) that the seeming referents of mental state predicates are, as a matter of fact, empty. Accordingly, the labels ‘beliefs’ or ‘desires’ systematically fail to denote. More modestly, others have worried that C fails, for less radical reasons. In their view, even if citing one’s ‘beliefs’ is not wholly empty, mental state talk might nevertheless be incapable of designating the relevant causal properties that could make C true, at least under its ‘standard’ interpretation (i.e. certain properties of the mental states of Jack and Jill were ‘causally’ responsible for their behaviour).

---

[25] For a recent challenge to Humeanism see Miller (2008).



The maximally minimalist approach I recommend brackets these worries in the first instance. All that follows if C is true is that Jack and Jill will have had to have acted on the basis of beliefs and desires with the relevant contents (i.e. and not, contrastively, because of a different set of beliefs or desires, or because of force of habit, the pull of magnetic forces, etc.). If so, the cited beliefs and desires will have made a difference in this case. We can (and should) insist on this without assuming that the truth of that simple utterance embeds or entails a commitment to other substantive and contentious philosophical 'theories' about the nature of mental states or their causal properties.

Depending on where one starts philosophically, it can be difficult even to make sense of this possibility. It is still *very popular* amongst philosophers to assume that our epistemic situation is bifurcated such that there are really only two ways of engaging with and knowing about the world. On the one hand, there is 'raw' unconceptualized sensory stimulation. At this level of encounter no claims are possible and concomitantly there is no risk of error. On the other hand, everything else, including the perceptions that feed cognition and action depend on making assumptions about 'what there is'. Such activity necessarily involves representation of some kind at the base level, with conceptualized thought, explicit judgment and linguistic claim-making coming in at later points. Unlike mere sensory stimulation this way of responding is an epistemically risky business. It follows that *any and all* representation or thinking is theorizing. The core idea and its motivations are epitomized in the following quotation from Churchland:

The common opinion concerning scientific knowledge and theoretical understanding — of molecules, of stars, of nuclei and electro-magnetic waves — is that it is of a kind very different from our knowledge of apples, and tables, and kitchen pots and sand ... these specious contrasts are wholesale nonsense ... Upon close inspection the various contrasts thought to fund the distinctions are seen to disappear. If viewed warily, the network of principles and assumptions constitutive of our common-sense conceptual framework can be seen to be as speculative and artificial as any overtly theoretical system ... In short, it appears that all knowledge (even perceptual knowledge) is theoretical; that there is no such thing as *non-theoretical* understanding ... we are left with little more than a distinction between freshly minted theory and thoroughly thumb-worn theory whose cultural assimilation is complete (Churchland, 1979, p. 1–2).

Against what might be crudely, but usefully, identified as the 'Quinean first philosophy' stands the view that the epistemic foundations of our various discourses, including those of science are *pragmatically* and not theoretically grounded. Embedded in this thought is

the recognition that although we ordinarily make claims about ‘what there is’ and that these can be true or false on occasion, our talk about everyday items is not rooted in forms of ancient *theorizing* about the familiar, (such as macroscopia, middle-sized dry goods) — an activity that is now allegedly long forgotten and hence hard to recognize as such. Rather, for the pragmatist, such talk has a wholly different origin, basis and status.

This is what Wittgenstein tried to get us to see by reminding us of the sorts of rock bottom certainties that are incorporated into and ground our everyday practices (see Moyal-Sharrock, 2007).

Children do not learn that books exist, that armchairs exist, etc. etc., — they learn to fetch books, sit in armchairs, etc., etc. Later questions about the existence of things do of course arise. ‘Is there such a thing as a unicorn?’ and so on. But such a question is possible only because as a rule no corresponding question presents itself (Wittgenstein, 1974, *On Certainty*, §476.).

In the same vein, children do not learn that beliefs and desires exist they learn how to make sense of others using such terms. If so, our everyday mentalistic thought and talk (or at least an important sub-set of it) is not theoretical. Indeed, it is importantly insulated from the success or failure of the ‘theories of mind’ that are popular in certain branches of philosophy of mind and cognitive science.<sup>26</sup>

Doesn’t this take us back to square one? Doesn’t this mean that FP talk is somehow autonomous and that empirical findings are unimportant to a philosophical understanding of it? No. For the mere *fact* that the folk *can* readily and adeptly produce and consume the relevant utterances (at least when called upon to do so) entails that they have an interesting competency: FP-competence. Just how often or ubiquitously it is exercised is not important (at least not in the first instance); what matters is if that capacity exists it wants explaining.<sup>27</sup> And this is

---

[26] I am not suggesting that FP commitments are in some way purely instrumental because they are lighter than ordinarily supposed. For example, it is not as if FP practitioners are committed only to a kind of ‘mild’ realism about beliefs and desires (Dennett, 1987; 1991). It is rather that FP explanations do not compete with scientific proposals about the causes of human behaviour. Although these discourses are interested in the same subject matter (differently described) they are interested in it in different ways and for different purposes (Hutto, 2009a).

[27] Nor would adopting the sort of approach I recommend absolve us from dealing with other driving concerns of analytic philosophy; in particular, understanding how ordinary claims stand to scientific discourses and determining what would have to be the case for them to be true. Dealing with these issues raises crucial but tricky general questions about the relation between what the use of everyday vocabularies entails for theories of growing modern science (and *vice versa*). Settling such questions has been an, if not ‘the’, abiding

precisely where, if we are careful, the interests of philosophers and those in other disciplines can be fruitfully and mutually informative.

### 5. Worries and Objections

In all, equating FP practice with a kind of narrative practice and looking to our narrative practices to understand the basis of FP competence opens up new empirical possibilities and can help to re-orient our philosophical thinking in important ways. But even if the basic idea that FP and narrative practices are importantly related holds promise it must stand up to a range of serious challenges. For example, does the emphasis on narrative wrongly underplay, misconstrue, or overlook the critical epistemic role of empathy (or simulative imagination) in the way we make sense of others (Stueber, 2008)?<sup>28</sup> Is the focus on FP narratives a mistake because there is, in fact, no well-defined sub-section of our practices that can be properly identified with FP at all; have I contravened Wittgenstein's rule by not leaving 'ragged what is ragged' (Ratcliffe 2008)?

I leave the discussion of, and response to, these worries (and many others, including several new ones that surface in the chapters of this collection) for a future occasion. Exploring and dealing with such challenges is part and parcel of on-going engagement in philosophy and science. In staying the course, my FP-narrative equation and the NPH may get a bit battered, they may require patching, elaboration and refinement, or they may turn out to be miserably inadequate or just plain false in the end. Maybe, but we surely don't know yet. It will be fun finding out.

### References

- Andrews, K. (2008), 'It's in your Nature: A pluralistic folk psychology', *Synthese*, **165**, pp.13–29.
- Baldwin, D.A., Baird, J.A., Saylor, M. and Clark, A. (2001), 'Infants Parse Dynamic Action', *Child Development*, **72**, pp. 708–17.
- Bamberg, M. (1987), *The Acquisition of Narratives: Learning to Use Language* (Berlin: Mouton de Gruyter).

---

agenda item of analytic philosophy (whether in its empiricist or naturalist guise) in this century and the previous one.

[28] Stueber makes this sort of objection to my approach in a footnote to a paper that argues, more generally, for the claim that making sense of reasons for acting centrally depends on empathically 'grasping another person's beliefs and desires as his or her own reason for acting' (Stueber, 2008, p. 34). Hence, he claims that my proposed understanding of folk psychology as essentially a kind of narrative practice 'insufficiently distinguishes among different epistemic aspects of our folk-psychological practice of understanding others that need to be held apart' (Stueber, 2008, p. 34).

- Bamberg, M. (In press), 'Sequencing Events in Time or Sequencing Events in Story-Telling? From cognition to discourse — with frogs paving the way' in *Festschrift for Dan Slobin*, ed. J Guo, S Ervin-Tripp, N Budwig (New Jersey: Lawrence Erlbaum Associates).
- Baird, J.A. and Baldwin, D.A. (2001), 'Making Sense of Human Behaviour: Action Parsing and Intentional Inference' In *Intentions and Intentionality: Foundations of Social Cognition* (ed. F. Malle, L.J. Moses, D.A. Baldwin) pp. 193–206 (Cambridge, MA: MIT Press).
- Bard, K.A. and Leavens, D.A. (2008), 'Socio-emotional Factors in the Development of Joint Attention in Human and Ape Infants' in *Learning from Animals? Examining the Nature of Human Uniqueness*, ed. L Roska-Hardy, EM Neumann-Held, pp. 89–104 (London: Psychology Press).
- Bartsch, K. and Wellman, H. (1995), *Children Talk about the Mind* (New York: Oxford University Press).
- Belmonte, M. (2007), 'Human, but More So: What the autistic brain tells us about the process of narrative' in *Autism and Representation*, ed. M Osteen (London: Routledge).
- Borg, E. (2007), 'If Mirror Neurons are the Answer, What was the Question?', *Journal of Consciousness Studies*, **14**, pp. 5–19.
- Braddon-Mitchell, D. and Jackson, F. (2007), *Philosophy of Mind and Cognition* (Oxford: Blackwell).
- Brandom, R.B. (2006), *Between Saying and Doing: Towards an Analytic Pragmatism* (Oxford: Oxford University Press).
- Bruner, J. (1990), *Acts of Meaning* (Cambridge, MA: Harvard University Press).
- Buller, D.J. (2005), *Adapting Minds: Evolutionary Psychology and the Persistent Quest for Human Nature* (Cambridge, MA: MIT Press).
- Carpendale, J.L.M. and Lewis, C. (2004), 'Constructing an Understanding of the Mind: The development of children's social understanding within social interaction', *Behavioural and Brain Sciences*, **27**, pp. 79–151.
- Churchland, P.M. (1979), *Scientific Realism and the Plasticity of Mind* (Cambridge: Cambridge University Press).
- Costall, A. and Leudar, I. (ed. 2009), *Against Theory of Mind* (Basingstoke: Palgrave).
- Currie, G. (2008), 'Some Ways of Understanding People', *Philosophical Explorations*, **11**, pp. 211–18.
- De Jaegher, H. and Di Paolo, E. (2007), 'Participatory Sense-Making: An enactive approach to social cognition', *Phenomenology and the Cognitive Sciences*, **6**, pp. 485–507.
- Dennett, D.C. (1987), *The Intentional Stance* (Cambridge, MA: MIT Press).
- Dennett, D.C. (1991), 'Real Patterns', *Journal of Philosophy*, **88**, pp. 27–51.
- Dennett, D.C. (2006), *Sweet Dreams: Philosophical Obstacles to a Science of Consciousness* (Cambridge, MA: MIT Press).
- Dupré, J. (2001), *Human Nature and the Limits of Science* (Oxford: Oxford University Press).
- Fodor, J.A. (1987), *Psychosemantics* (Cambridge, MA: MIT Press).
- Gallagher, S. (2006), 'The Narrative Alternative to Theory of Mind' in *Radical Enactivism: Focus on the Philosophy of Daniel D. Hutto*, ed. R Menary, pp. 223–29 (Amsterdam: John Benjamins).
- Gallagher, S. (2007), 'Simulation Trouble', *Social Neuroscience*, **2**, pp. 353–65.
- Gallagher, S. and Zahavi, D. (2008), *The Phenomenological Mind: An Introduction to Philosophy of Mind and Cognitive Science* (London: Routledge).

- Gallese, V. (2007), 'Before and below "theory of mind": Embodied simulation and the neural correlates of social cognition', *Philosophical Transactions of the Royal Society Biological Sciences*, **362**, pp. 659–69.
- Garfield, J.L. Peterson, C.C. and Perry, T. (2001), 'Social Cognition, Language Acquisition and the Development of the Theory of Mind', *Mind and Language*, **16**, pp. 494–541.
- Goldman, A.I. (2006), *Simulating Minds: The Philosophy, Psychology and Neuroscience of Mindreading* (New York: Oxford University Press).
- Gopnik, A. and Meltzoff, A.N. (1997), *Words, Thoughts, and Theories* (Cambridge, MA: MIT Press).
- Gordon, R.M. (2008), 'Beyond Mindreading', *Philosophical Explorations*, **11**, pp. 219–22.
- Harris, P. (1996), 'Desires, Beliefs and Language' In *Theories of Theories of Mind*, ed. P Carruthers, P Smith, pp. 200–20 (Cambridge: Cambridge University Press).
- Herman, D. (2008a), 'Description, Narrative, and Explanation: Text-Type Categories and the Cognitive Foundations of Discourse Competence', *Poetics Today*, **29**, pp. 437–72.
- Herman, D. (2008b), 'Narrative Theory and the Intentional Stance', *Partial Answers*, **6**, pp. 233–60.
- Herschbach, M. (2008), 'False-Belief Understanding and the Phenomenological Critics of Folk Psychology', *Journal of Consciousness Studies*, **15**, pp. 33–56.
- Hill, J.D. (2008), *Made-from-Bone: Trickster Myths, Music, and History from the Amazon* (Champaign, IL: Illinois University Press).
- Hobson, P. (2002), *The Cradle of Thought* (Basingstoke: Palgrave Macmillan).
- Hornsby, J. (1997), *Simple Mindedness* (Cambridge, MA: Harvard University Press).
- Hutto, D. and Ratcliffe, M. (ed. 2007), *Folk Psychology Re-Assessed* (Dordrecht: Springer).
- Hutto, D.D. (1997), 'The Story of the Self: The Narrative Basis of Self-Development' in *Critical Studies: Ethics and the Subject*, ed. K Simms (Amsterdam: Rodopi).
- Hutto, D.D. (1999), *The Presence of Mind* (Amsterdam: John Benjamins).
- Hutto, D.D. (2000), *Beyond Physicalism* (Amsterdam: John Benjamins).
- Hutto, D.D. (2004), 'The Limits of Spectatorial Folk Psychology' *Mind and Language*, **19**, pp. 54873.
- Hutto, D.D. (2005), 'Knowing What? Radical versus conservative enactivism', *Phenomenology and the Cognitive Sciences*, **4**, pp. 389–405.
- Hutto, D.D. (2006), 'Unprincipled Engagements: Emotional experience, expression and response' in *Radical Enactivism: Focus on the Philosophy of Daniel D. Hutto*, ed. R Menary, pp. 13–38 (Amsterdam/Philadelphia: Jon Benjamins).
- Hutto, D.D. (2007), 'The Narrative Practice Hypothesis: Origins and applications of folk psychology', *Narrative and Understanding Persons: Royal Institute of Philosophy Supplement*, **82**, pp. 43–68.
- Hutto, D.D. (2008a), *Folk Psychological Narratives: The Sociocultural Basis of Understanding Reasons* (Cambridge, MA: MIT Press).
- Hutto, D.D. (2008b), 'The Narrative Practice Hypothesis: Clarifications and Consequences', *Philosophical Explorations*, **11**, pp. 175–92.
- Hutto, D.D. (2008c), 'Limited Engagements and Narrative Extensions', *International Journal of Philosophical Studies*, **16**, pp. 419–44.
- Hutto, D.D. (2008d), 'Articulating and Understanding the Phenomenological Manifesto', *Abstracta - Linguagem, Mente e Ação*, 10–9.
- Hutto, D.D. (2009a), 'Lessons from Wittgenstein: Elucidating folk psychology', *New Ideas in Psychology. Special Issue: Mind, Meaning and Language: Wittgenstein's Relevance for Psychology*

- Hutto, D.D. (2009b), 'ToM Rules, but it is not OK' in *Against Theory of Mind*, ed. A Costall, I Leudar (Basingstoke: Palgrave).
- Jackson, F. (1998), *From Metaphysics to Ethics* (Oxford: Oxford University Press).
- Lewis, D. (1972), 'Psychophysical and Theoretical Identifications', *Australasian Journal of Philosophy*, **50**, pp. 249–58.
- Maibom, H.L. (2003), 'The Mindreader and the Scientist', *Mind and Language*, **18**, pp. 296–315.
- McGeer, V. (2007), 'The Regulative Dimension of Folk Psychology' in *Folk Psychology Re-Assessed*, ed. DD Hutto, M Ratcliffe, pp. 137–56 (Dordrecht: Springer).
- Meltzoff, A.N. (1995), 'Understanding the Intentions of Others: Re-enactment of Offending Acts by 18-Month-Old Children', *Developmental Psychology*, **24**, pp. 470–6.
- Miller, C. (2008), 'Motivation in Agents', *Nous*, **42**, pp. 222–66.
- Moyal-Sharrock, D. (2007), *Understanding Wittgenstein's On Certainty* (Basingstoke: Palgrave).
- Nelson, K. (2003), 'Narrative and the Emergence of a Consciousness of Self' in *Narrative and Consciousness*, ed. GD Fireman, TEJ McVay, O Flanagan (Oxford: Oxford University Press).
- Nelson, K. (2007), *Young Minds in Social Worlds* (Cambridge, MA: Harvard University Press).
- Nichols, S. and Stich, S. (2003), *Mindreading: An Integrated Account of Pretence, Self-Awareness and Understanding of Other Minds* (Oxford: Oxford University Press).
- Nicolopoulou, A. (2007), 'The Interplay of Play and Narrative in Children's Development: Theoretical reflections and concrete examples' in *Play and Development: Evolutionary, Sociocultural, and Functional Perspectives*, ed. A Göncü, S Gaskin (New York and London: Lawrence Erlbaum Associates).
- Onishi, K.H. and Baillargeon, R. (2005), 'Do 15-Month-Old Infants Understand False Beliefs?', *Science*, **308**, pp. 255–58.
- Onishi, K.H. Baillargeon, R. and Leslie, A.M. (2007), '15-month-old infants detect violations in pretend scenarios', *Acta Psychologica*, **124**, pp. 106–28.
- Racine, T. Carpendale, J.I.M. and Turnbull, W. (2007), 'Parent-Child Talk and Children's Understanding of Beliefs and Emotions', *Cognition and Emotion*, **21**, pp. 480–94.
- Ramsey, W.M. (2007), *Representation Reconsidered* (Cambridge: Cambridge University Press).
- Ratcliffe, M. (2007), *Rethinking Commonsense Psychology: A Critique of Folk Psychology, Theory of Mind and Simulation* (Basingstoke: Palgrave Macmillan).
- Ratcliffe, M. (2008), 'Farwell to Folk Psychology: A Response to Hutto', *International Journal of Philosophical Studies*, **16**, pp. 445–51.
- Ratcliffe, M. (2009), 'There are no Folk Psychological Narratives', *Journal of Consciousness Studies*, **16**, No. 6–8, pp. 379–406.
- Ratcliffe, M. and Hutto, D. (2007), 'Introduction' in Hutto and Ratcliffe (ed. 2007).
- Reddy, V. and Morris, P. (2004), 'Participants Don't Need Theories: Knowing mind in engagement', *Theory and Psychology*, **14**, pp. 647–65.
- Richardson, R. (2007), *Evolutionary Psychology as Maladapted Psychology* (Cambridge, MA: MIT Press).
- Rizzolatti, G. and Sinigaglia, C. (2006), *Mirrors in the Brain: How Our Minds Share Actions and Emotions* (Oxford: Oxford University Press).

- Samuels, R. (2000), 'Massively Modular Minds: Evolutionary Psychology and Cognitive Architectures' in *Evolution and the Human Mind: Modularity, Language and Meta-Cognition*, ed. P Carruthers, A Chamberlain (Cambridge: Cambridge University Press).
- Scalise Sugiyama, M. (1996), 'On the Origins of Narrative: Storyteller Bias as a Fitness-Enhancing Strategy', *Human Nature*, **7**, pp. 403–25.
- Scalise Sugiyama, M. (2001), 'Food, Foragers, and Folklore: The role of narrative in human subsistence', *Evolution and Human Behavior*, **22**, pp. 221–40.
- Scalise Sugiyama, M. (2003), 'Cultural Variation is Part of Human Nature: Literary universals, context-sensitivity and "Shakespeare in the bush"', *Human Nature*, **14**, pp. 383–96.
- Scalise Sugiyama, M. (2005), 'Reverse-engineering Narrative' in *The Literary Animal*, ed. J Gottschall, DSW Wilson (Evanston, Illinois: Northwestern University Press).
- Scalise Sugiyama, M. (2008), 'Narrative as Social Mapping — Case Study: The trickster genre and the free rider problem', *Ometeca*, **12**, pp. 24–42.
- Shelley, M. (2003/1817), *Frankenstein or the Modern Prometheus* (Ann Arbor: Border Classics).
- Sinha, C. (2005), 'Blending out of the Background: Play, props and staging in the material world', *Journal of Pragmatics*, **37**, pp. 1537–54.
- Sinigaglia, C. (2008), 'Mirror Neurons: This is the question', *Journal of Consciousness Studies*, **15**, pp. 70–92.
- Slors, M. and MacDonald, C. (2008), 'Rethinking Folk Psychology: Alternatives to Theories of Mind', *Philosophical Explorations*, **11**, pp. 153–61.
- Sorell, T. (1991), *Scientism: Philosophy and its Infatuation with Science* (London: Routledge).
- Sparaci, L. (2008), 'Embodying Gestures: The social orienting model and the study of early gestures in autism', *Phenomenology and the Cognitive Sciences*, **7**, pp. 203–23.
- Sterelny, K. (2003), *Thought in a Hostile World* (Oxford: Blackwell).
- Sterelny, K. (2006), 'Language, Modularity and Evolution' in *Teleosemantics*, ed. G MacDonald, D Papineau (Oxford: Oxford University Press).
- Stich, S. and Ravenscroft, I. (1996), 'What is Folk Psychology?' in *Deconstructing the Mind* (Oxford: Oxford University Press).
- Stueber, K.R. (2008), 'Reasons, Generalizations, Empathy, and Narratives: The epistemic structure of action explanation', *History and Theory*, pp. 19–30.
- Tomasello, M. (2003), *Constructing a Language: A Usage-Based Theory of Language Acquisition* (Cambridge, MA: Harvard University Press).
- Tooby, J. and Cosmides, L. (1995), 'Foreword' in *Mindblindness: An Essay on Autism and Theory of Mind*, ed. S Baron-Cohen, pp. ix–xviii. (Cambridge, MA: MIT Press).
- Williamson, T. (2007), *The Philosophy of Philosophy* (Oxford: Blackwell).
- Wittgenstein, L. (1974), *On Certainty* (Oxford: Basil Blackwell).
- Zahavi, D. (2007), 'Self and Other: The limits of narrative understanding' in *Narrative and Understanding Persons*, ed. DD Hutto. Royal Institute of Philosophy Supplement. (Cambridge: Cambridge University Press).
- Zawidzki, T. (2008), 'The Function of Folk Psychology: Mind reading or mind shaping?', *Philosophical Explorations*, **11**, pp. 193–210.
- Zlatev, J. Racine, T. Sinha, C. and Itkonen E. (ed. 2008), *The Shared Mind: Perspectives on Intersubjectivity* (Amsterdam/Philadelphia: John Benjamins).
- Zunshine, L. (2006), *Theory of Mind and the Novel: Why We Read Fiction* (Columbus: Ohio State University Press).



- Samuels, R. (2000), 'Massively Modular Minds: Evolutionary Psychology and Cognitive Architectures' in *Evolution and the Human Mind: Modularity, Language and Meta-Cognition*, ed. P Carruthers, A Chamberlain (Cambridge: Cambridge University Press).
- Scalise Sugiyama, M. (1996), 'On the Origins of Narrative: Storyteller Bias as a Fitness-Enhancing Strategy', *Human Nature*, **7**, pp. 403–25.
- Scalise Sugiyama, M. (2001), 'Food, Foragers, and Folklore: The role of narrative in human subsistence', *Evolution and Human Behavior*, **22**, pp. 221–40.
- Scalise Sugiyama, M. (2003), 'Cultural Variation is Part of Human Nature: Literary universals, context-sensitivity and "Shakespeare in the bush"', *Human Nature*, **14**, pp. 383–96.
- Scalise Sugiyama, M. (2005), 'Reverse-engineering Narrative' in *The Literary Animal*, ed. J Gottschall, DSW Wilson (Evanston, Illinois: Northwestern University Press).
- Scalise Sugiyama, M. (2008), 'Narrative as Social Mapping — Case Study: The trickster genre and the free rider problem', *Ometeca*, **12**, pp. 24–42.
- Shelley, M. (2003/1817), *Frankenstein or the Modern Prometheus* (Ann Arbor: Border Classics).
- Sinha, C. (2005), 'Blending out of the Background: Play, props and staging in the material world', *Journal of Pragmatics*, **37**, pp. 1537–54.
- Sinigaglia, C. (2008), 'Mirror Neurons: This is the question', *Journal of Consciousness Studies*, **15**, pp. 70–92.
- Slors, M. and MacDonald, C. (2008), 'Rethinking Folk Psychology: Alternatives to Theories of Mind', *Philosophical Explorations*, **11**, pp. 153–61.
- Sorell, T. (1991), *Scientism: Philosophy and its Infatuation with Science* (London: Routledge).
- Sparaci, L. (2008), 'Embodying Gestures: The social orienting model and the study of early gestures in autism', *Phenomenology and the Cognitive Sciences*, **7**, pp. 203–23.
- Sterelny, K. (2003), *Thought in a Hostile World* (Oxford: Blackwell).
- Sterelny, K. (2006), 'Language, Modularity and Evolution' in *Teleosemantics*, ed. G MacDonald, D Papineau (Oxford: Oxford University Press).
- Stich, S. and Ravenscroft, I. (1996), 'What is Folk Psychology?' in *Deconstructing the Mind* (Oxford: Oxford University Press).
- Stueber, K.R. (2008), 'Reasons, Generalizations, Empathy, and Narratives: The epistemic structure of action explanation', *History and Theory*, pp. 19–30.
- Tomasello, M. (2003), *Constructing a Language: A Usage-Based Theory of Language Acquisition* (Cambridge, MA: Harvard University Press).
- Tooby, J. and Cosmides, L. (1995), 'Foreword' in *Mindblindness: An Essay on Autism and Theory of Mind*, ed. S Baron-Cohen, pp. ix–xviii. (Cambridge, MA: MIT Press).
- Williamson, T. (2007), *The Philosophy of Philosophy* (Oxford: Blackwell).
- Wittgenstein, L. (1974), *On Certainty* (Oxford: Basil Blackwell).
- Zahavi, D. (2007), 'Self and Other: The limits of narrative understanding' in *Narrative and Understanding Persons*, ed. DD Hutto. Royal Institute of Philosophy Supplement. (Cambridge: Cambridge University Press).
- Zawidzki, T. (2008), 'The Function of Folk Psychology: Mind reading or mind shaping?', *Philosophical Explorations*, **11**, pp. 193–210.
- Zlatev, J. Racine, T. Sinha, C. and Itkonen E. (ed. 2008), *The Shared Mind: Perspectives on Intersubjectivity* (Amsterdam/Philadelphia: John Benjamins).
- Zunshine, L. (2006), *Theory of Mind and the Novel: Why We Read Fiction* (Columbus: Ohio State University Press).