

8. THE REGULATIVE DIMENSION OF FOLK PSYCHOLOGY

8.1. SETTING THE SCENE

A focal project in philosophy of mind and related cognitive disciplines is to understand the nature of our “folk-psychological” capacity for making sense of mind and behaviour – primarily human minds and behaviour, but also to some extent the minds and behaviour of other seemingly goal-directed organisms. As a species, we are, so far as we know, almost unique in our capacity to see individuals as ‘minded’ – as richly endowed with a panoply of intentional, emotional, perceptual and other kinds of states of mind that guide behaviour. Animal ethologists, particularly primatologists, continue to engage in a fascinating debate about whether and to what extent other species might share certain features of this capacity (see, for instance, Bekoff et al. 2002; Browne 2004; Byrne and Whiten 1988; Cheney and Seyfarth 1992; Heyes 1998; Pepperberg 1999; Povinelli 1996; Povinelli and Eddy 1996; Premack and Woodruff 1978). But one thing is certain, no other species has the sort of well-elaborated mentalizing skills that so importantly shapes our own experience in the world. We are not just mentalizers, we are inveterate mentalizers – finding it very hard to suppress our natural inclination to see various entities as humanly minded creatures, even when we have reason to worry or suspect that our well-elaborated practice of attributing psychological states is out of place on some occasions, except of course as a convenient *façon de parler*.

Of course, most of the time the suitability of such attributions doesn’t worry us overmuch. We happily go about our daily lives commenting on the supposed mental lives of our infants, our family pets, the squirrels that chase one another about in the garden, even some of our own artefacts – computers, for instance, so far as they’re running various interactive programs. All these things behave in a way – *act* in a way – that simply invites making sense of what they’re doing in mentalistic terms – paradigmatically, theorists claim, in terms of beliefs and desires (the Ur mental states that together rationalize any apparently goal-directed behaviour). A nice demonstration of this mentalizing proclivity can be seen in typical subjects’ reactions to Heider and Simmel’s now famous stimulus: a short film involving three geometric figures that move around within and outside a partially enclosed rectangular space (Heider and Simmel 1944). The geometric figures, consisting of a circle, a small triangle and a larger triangle, look to be interacting with one another – with the large triangle “chasing” and then “bullying” the circle in and out of the rectangular enclosure, the smaller triangle “interceding to help the circle out”, and then both circle and small triangle “making their escape” from the

“persecuting attentions” of the large bullying triangle, which pounds against the rectangular enclosure in “anger and frustration”, eventually destroying it. These folk-psychological attributions of intention, emotion, even virtues and vices within a sense-making narrative frame are incredibly robust across normal viewers, with individuals both spontaneously offering such narratives and also largely agreeing on how to interpret the behaviour of the “characters” involved. Moreover, at least in typically developing individuals, this tendency to be ‘mentally responsive’ to low-level perceptual cues seems to emerge very early on – well before, and so clearly foundational for, children’s development of any elaborate, mentally characterizable social knowledge (see, for instance, Carpenter et al. 1998; Gergely et al. 1995; Johnson et al. 1998; Johnson 2000; Meltzoff 1995; Watson 1979).

Although tracing the earliest roots of our mentalizing proclivities is a fascinating endeavour (and one I will say a little bit more about at the end of section 3), my point here in emphasizing these very basic perceptual biases is to underscore how deeply we are biologically and socially primed to become, in the course of development, skilled and inveterate folk psychologists. And herein lies a problem. We become so thoroughly enmeshed in the *practice* of folk psychology – it becomes so thoroughly second nature to us – that pulling away from it enough to see its central features is surprisingly difficult to do. Over the years, philosophers, psychologists and other cognitive scientists have had furious and fruitful debates about many aspects of this practice, often drawing controversial and even counter-intuitive conclusions: for instance, that folk psychology is a commonsense proto-scientific theory of mind and behaviour applied to cases much like any other (proto)-scientific theory; that it involves a panoply of (theoretical) concepts (centrally belief and desire) that may well not survive in a mature science of mind and behaviour; that knowledge of our own minds is as theoretically mediated as our knowledge of other people’s – hence, prone to the same sorts of errors demonstrably found in third-person attributions; that because it is acquired so early and with such little instruction, human beings must be innately pre-equipped with its basic concepts and/or causal principles, and so on. For each of these positions, there are strongly defended counter-positions, with a mixture of conceptual and empirical arguments offered on each side. Consensus on some issues is emerging slowly; on others, deep divisions remain. But amidst all the theoretical clamour surrounding folk psychology, there are central features of the practice that remain persistently invisible to all sides despite the fact that we live and breathe these features in our day to day lives.

The purpose of this paper is to render one of those invisible features visible to the theoretical eye. My aim is thus to present a somewhat heterodox image of folk psychology in contrast to what I will call the standard image – a term I will use to encompass significantly different views. The point of contention I want to mark is simply this. On the standard approach, the primary task for folk psychology is the *explanation and prediction of behaviour*. Some theorists will acknowledge that there is more to folk psychology than this – for instance, as folk psychologists we often evaluate individuals’ agential capacities; we make judgements of rationality, of character and of responsibility; and we apportion various degrees of praise and

blame for their doings depending on the sorts of agential assessments we have made. But however central we folk may take these activities to be, they surely build on the capacity to attribute mental states in the first place; and we attribute mental states in the first place to try and figure out what others are up to – i.e. to try and explain and predict their behaviour. Theoretically, then, it seems entirely reasonable to focus on the capacity for explaining and predicting behaviour as the core capacity of interest. In any case, this assumption is not generally disputed. For the vast majority of theorists working in the philosophy of mind and other cognitive disciplines today, the aim has been to give an empirically well-supported and plausible account of our remarkable facility for everyday mentalistic explanation and prediction.¹

The alternative image of folk psychology that I will present rejects the grounding assumption of this standard approach. But this bald statement must be carefully interpreted. It's not that I claim that there is no phenomenon of interest that cries out for theoretical explanation: we do have a remarkable facility for explaining and sometimes even predicting others' behaviour – particularly those we know well – by virtue of reasoning about their alleged mental states. I take this point to be uncontroversial. Nevertheless, I claim that by envisioning the goal of mental state attribution in such a narrow way, we overlook certain intersubjective features of the practice of folk psychology that make a critical difference for how we conceptualize the cognitive competence, or competencies, that underlie such folk-psychological skills. In particular, we overlook the way folk psychology operates as a *regulative* practice, moulding the way individuals act, think and operate so that they become well-behaved folk-psychological agents: agents that can be well-predicted and explained using both the concepts and the rationalizing narrative structures of folk psychology. Hence, on this alternative view, a central theoretical goal must be to give an empirically well-supported and plausible account of our remarkable ability to regulate others – as well as regulate ourselves – through the everyday practice of attributing mental states. Our capacity for “explaining and predicting” others' behaviour can then be understood more fruitfully in light of this account – viz. as a capacity that is exercised in more limited ways than envisioned by the standard approach, and as a capacity that has its ups and downs but which cannot be assessed, in any case, according to the standards of explanatory/predictive practices in the sciences.

But things are never quite as simple as they seem and before proceeding to the substance of the paper I should mention that there are two different versions in which the standard view of folk psychology comes. One is called the theory theory account, a term introduced by Adam Morton in 1980 to characterize a growingly popular view (Morton 1980); the other is the simulation account, originating in its contemporary form in the work of Alvin Goldman and Robert Gordon (Goldman 1989, 1992; Gordon 1986). According to the first view, folk psychology is primarily a theory of the antecedents of human behaviour, and the behaviour of intentional systems in general; it is a theory that depicts folk psychology as a theory designed in the ordinary scientific fashion to help us explain and predict one another (Churchland 1979; Dennett 1987; Fodor 1987; Lewis 1983). According to the second, simulation

view, folk psychology is primarily a method of explaining and predicting and is only incidentally associated with theorizing. The method consists in simulating the states of others, using ourselves as a model; it involves looking at the circumstances of others and then seeing what we would feel and think and want, and ultimately what we would do, in those circumstances (Currie and Ravenscroft 2003; Davies 1994; Goldman 1993; Gordon 1986; Heal 1998, 2003). There has been a long-running and enlightening debate between these two approaches and we shall be referring to them again in the course of the discussion. From the point of view of this paper, however, the commonality between the approaches is more important than the differences. For whether folk psychology is cast as a theory or as a method, it is seen in each case as primarily concerned with explanation and prediction. And that is the standard assumption that I contest.

As between the two versions of folk psychology, I should say that I think the theory theory comes across as rather better grounded. Folk psychology is distinguished by the fact that it provides us with a range of categories and kinds, including belief and desire, intention and action, deliberation and will, freedom and reason, emotion and valuation, and the like. And as between those different sorts of states and episodes, folk psychology gives us an overall framework according to which some of these are intelligible and predictable, others not. It is hard not to think of it, then, as a sort of theory, at least so long as we hold that our primary task in interacting with others is to explain and predict their behaviour. Simulation may be involved in the application of the theory, representing a heuristic for determining how the categories apply to another person. But it can hardly represent the whole of what folk psychology comes to. This being so, I shall concentrate in what follows on the theory theory version of the standard view.

The remainder of the paper is divided into two sections. In Section 8.2, I look at what I describe as the normative aspect of folk psychology, even under the standard view of it; this is particularly highlighted in the theory theory version. And then in Section 8.3 I go on to focus on how folk psychology proves not just to be a normative but a regulative practice.

8.2. THE NORMATIVE CORE OF FOLK PSYCHOLOGY

Even philosophers who support the standard view often support an assumption that will, in Section 8.3, direct us towards the alternative, regulative conception of folk psychology. This section is given to examining this assumption, focusing on its centrality in the theory theory version and commenting on how it appears from the perspective of the rival, simulation story.

The assumption I have in mind is that when folk psychologists attribute beliefs and desires to predict and/or explain one another's behaviour, they are *making sense* of that behaviour in a distinctive way. They presuppose a model of what it is to be sensible, and they make sense of one another's behaviour so far as they succeed in squaring what is done with the requirements of the model. Folk

psychologists predict and explain *by* making attributions that make sense of one another's behaviour relative to a common fund of sense-making norms.

Even on the standard view, then, folk psychology is not just an explanatory/predictive practice; it is also, in a sense, a normative practice: a practice of showing how people's performances live up to certain norms and thereby become, in that special way, intelligible. Although folk psychologists may have some context-specific views about what others will do – based, for instance, on experience – the bulk of these views will be heavily influenced by norm-governed judgements about what others *ought* to do, what it makes sense to do, in the circumstances. They may know from experience with certain individuals that they are quirky and unusual in one or another respect and they will take account of such special knowledge in trying to give an account of the doings of people. But in general they will abstract from details of this kind and rely on the norms that people may generally be expected to satisfy.

Once the normative aspect of folk psychology is thus laid bare, two questions immediately arise: First, how do folk psychologists come to have sufficiently well-elaborated normative views about what others ought to think and do under various circumstances to drive their judgements in particular cases? And, second, how does it come about that these others generally think and do what they ought to think and do, so that making normative judgements about them works pretty well as a technique for explaining and predicting their behaviour?

A powerful and influential set of answers to these questions has been offered from within the theory theory camp of the standard view. These answers depend on the assumption that human beings are by and large *rational* creatures and, consequently, that the sense-making norms of folk psychology amount in good part to *norms of rationality*. Such norms will dictate what beliefs and desires should be formed in the presence of such and such bodies of evidence; how beliefs and desires should hang together in certain patterns of consistency and coherence; and what behaviour is suitable in the light of this or that set of beliefs and desires (Davidson 1984; Dennett 1987; Jackson 1992).

Given these assumptions we may now answer our two questions as follows: First, so far as developing well-elaborated views about what others ought to think and do under various circumstances, the epistemic task facing ordinary folk psychologists should not be as daunting as it might initially seem. They are, after all, rational creatures themselves, so will have an inbuilt sense of the kind of norms that govern rational thought and action. Specifically, folk psychologists will have an inbuilt sense of (1) the sort of beliefs and desires that rational creatures form under the circumstances in which they find themselves, and (2) the sorts of actions that rational creatures pursue in light of their beliefs and desires. And they will make their attributions of belief and desire, and their explanations and predictions of action, accordingly. With respect to the second question regarding how to account for the predictive/explanatory success of these normative judgements, the answer is equally clear. The targets of folk-psychological attention – viz. other agents – are

rational creatures too. Hence, they will generally think and do what they ought to think and do relative to the sense-making norms of folk psychology.

On this account, our capacity for folk-psychological explanation and prediction boils down to what Dennett has called a capacity to adopt the "intentional stance" (Dennett 1978, 1987).² The stance consists in viewing agents from within the assumption that they are rational, allowing for departures from rationality only so far as collateral evidence warrants; this will consist in evidence on human failures in general and evidence on the failures of those agents in particular. It means maximizing the extent to which they can be seen as exemplars of the rational model, within the constraints that such evidence imposes. But here the constraints are important too. As Dennett has repeatedly emphasized, since the thrust of folk psychology is to rationalize, the strategy only works so far as others' behaviour does not depart too wildly from norms of rationality.

Some have taken this feature as a reason to object to Dennett's way of accounting for our ordinary folk-psychological predictive-explanatory expertise. The concern has been that this approach is *overly* rationalistic, not allowing sufficiently for the myriad ways in which human beings lapse from the rational ideal – yet seem to remain perfectly understandable. Indeed, some simulation theorists have suggested that, since folk psychologists are perfectly able to take such foibles in their explanatory-predictive stride, this argues strongly in favour of their account of how folk psychologists arrive at sense-making judgements of others' behaviour – viz. by using themselves, cognitive warts and all, as a working model for exploring what others' will think and do (see, for instance, Gordon 1992).

There is a certain sense in which simulation theorists are right to worry about this aspect of Dennett's account, but they have focussed their worry in the wrong direction. And this is because they have been – like the theory theorists they criticize – thoroughly pre-occupied with the problem of explanation and prediction. It is, of course, true to say that human beings lapse from the ideal of rationality in all sorts of interesting ways – Dennett would be first to acknowledge this. But it would *not* be true to say, as simulation theorists have, that folk psychologists are very adept at predicting (or explaining) such lapses of rationality.³ So they are no further ahead than Dennett in saying what is special or significant in the way folk psychologists deal with lapses of rationality – ways that allow them to take such lapses genuinely "in their stride", even if this is not a predictive-explanatory stride.

In my view, what is most noteworthy in these cases is the fact that folk psychologists have, as part of their overall competence, myriad techniques for identifying, excusing, blaming, accepting responsibility, apologizing and otherwise restoring confidence in the efficacy of the normative structures that govern the behaviour of individuals who *ought* to be explicable and predictable using the techniques of folk psychology, even though sometimes they are not. In other words, folk psychologists treat lapses of rationality, not just as "surd spots" in an explanatory/predictive theory, but as reasons to take some kind of remedial or restorative action. This suggests that the real problem with Dennett's "rationalistic" characterization of folk psychology's normative structure is not that it is overly demanding in terms of its rationality constraint, but rather

that it's overly austere in the assumption that the point of folk psychology, first and foremost, is to predict and explain. Thus, it gives a skeletal presentation of certain aspects of folk psychology's normative structure, but fails to take note of the regulative features that put a substantial kind of living flesh on the bare bones thus presented. I will return to this point in section 8.3 below.

In the remainder of this section I want to address a different question, related to the use of folk psychology, not just with one another, but also with other species – indeed, even with robots and computers. The discussion of this issue will help us to see the rival merits of the versions of the standard view but will also give us a nice segue into the discussion of the heterodox view in Section 8.3.

Recall the very striking phenomenon that I noted at the outset of this paper – viz. our readiness to see other entities as minded, so long as they display certain (low-level) agent-like characteristics. As folk psychologists we are primed to put our mentalizing skills to work in explaining and predicting the behaviour of all sorts of entities – and not just those that strike us as similar in form, features, habits or likely inclinations. This is surprising, since *a priori* one might have thought that little joy would come of this folk-psychological promiscuity. The selective pressures that gave rise to our folk-psychological capacities are likely to have been effective in the context of explaining, predicting and perhaps coordinating our behaviour with *conspesifics*; and so to have given rise to a cognitive mechanism evoked purely or primarily in our interactions with others of our kind. So why should we be prone to deploy our folk psychology with creatures of other kinds?

Simulation theory does not have a useful line on this question. On that theory, folk psychologists use their own cognitive mechanism to model others' cognitive situations, and so we should expect their predictive-explanatory expertise to be dramatically limited to creatures with relatively similar cognitive mechanisms. But while it does seem to be true that we have *more* explanatory-predictive purchase with conspecifics, we are not entirely baffled by creatures that are cognitively quite different from us. So the evidence suggests that no deep cognitive isomorphism is required to support such folk-psychological capacities.

Dennett's intentional stance approach offers a much better line on the question. On Dennett's view, folk psychologists can be expected to do a perfectly adequate job predicting the behaviour of a wide range of entities, both natural and artificial, because belief-desire psychology is abstract enough to track any pattern of behaviour that has a more or less rational profile (Dennett 1987, 1991). The precise nature of an entity's internal structure is neither here nor there so long as it manifests the requisite pattern of behaviour (cf. Jackson and Pettit 1990a). Hence, folk psychologists can use folk psychology to do predictive work, ascribing beliefs and desires in ignorance of the underlying cognitive (or mechanical) structures that are involved in supporting the predicted behaviour. Indeed, this capacity seems to give folk psychologists every reason to regard the entities so predicted as genuinely minded, as genuinely having beliefs and desires. For all it takes to have a mind – that is, to have beliefs and desires – from this perspective is to be “reliably and voluminously predicted from the intentional stance” (Dennett 1987).

Dennett's line on this issue is undoubtedly attractive but it runs foul of a singular fact that must now be put on the board. It's just this: Even though we may acknowledge that our predictive-explanatory talents extend easily to non-human entities, most of us remain unsure at the end of the day as to whether these entities are genuinely minded. Or at the least we are ambivalent on the issue. We may have some inclination to see our cats, our dogs and other sociable pets as genuinely minded. But we are much less committed to regarding the animals we eat, wild animals, and artificial entities (at least in our theoretical conception of them) as minded. Moreover, while the history of philosophy is replete with arguments that try to regiment our commonsense views about these matters, most of these arguments end by placing human beings firmly on one side of a deep metaphysical – or at least cognitive – divide, and animals and other non-human entities firmly on the other. We police the boundaries of “genuine” mindedness with a great deal of care and anxiety.

So now the question is why? What are we responding to, intuitively speaking, when we treat the sceptical problem of other (human) minds as a pleasing intellectual game, but the sceptical problem of other animal minds as a deep and difficult problem? Obviously, language must have a major role to play in the answer we give to this question. But it's important not to leap too quickly into thinking we have an answer just by adverting to language. For our linguistic capacities can be recruited to rather different explanatory ends. For instance, the fact that we can tell one another about our beliefs and desires will make it the case that we are much more readily predicted and explained from the intentional stance. So this may suggest that our intuitive resistance to treating non-human entities as genuinely minded boils down to the fact that other human beings are so much more ‘reliably and voluminously’ amenable to folk-psychological prediction than they are. But is this all that can be said? Or is there some special quality to be found in our folk-psychological interactions with one another because we are language users – in particular, *because we are adept in the use and understanding of folk-psychological concepts* – that is just not captured by this story?

I think there is and I turn to explain why in Section 8.3. But first I would like to make one last observation regarding simulation theory. One of the attractions of this approach is that it takes the special quality of our folk-psychological experiences with one another very seriously, aiming at an account that will do justice to it. But, once again, because simulation theorists are preoccupied with the issue of folk-psychological explanation and prediction, I think their concerns have taken them in exactly the wrong direction. Thus, they have tried to capture what is special about our folk-psychological interactions by identifying a *special sort of mechanism* for explanation and prediction that would give folk psychologists a peculiar intimacy with other human beings – viz. the mechanism of projective identification. But, as we saw above, this makes our predictive-explanatory success with creatures that are rather different from us rather difficult to explain.

For this reason we should take a different tack, locating the real problem with an intentional stance construal of our folk-psychological talents in quite a

different place. Specifically, the problem with this construal is not that it inappropriately *expands the scope* of our predictive-explanatory competence; it is rather that it inappropriately *collapses the range* of our folk-psychological talents into an explanatory-predictive competence, no matter how widely that competence might be seen to range. The role of explanation and prediction has been greatly over-exaggerated relative to its proper place in a more accurate account of the everyday interactions of ordinary folk psychologists.

8.3. FOLK PSYCHOLOGY AS A REGULATIVE PRACTICE⁴

To my mind, coming to see folk psychology as a regulative practice requires no great conceptual leap. Thus, even though I acknowledge that presenting it as such constitutes a heterodox theoretical view, my hope is to justify this theoretical re-orientation by showing how it follows straightforwardly from a few observations that many philosophers who work within the standard tradition should happily accept. As Wittgenstein would have said, the problem is simply that we have been transfixed by a theory, and the best way to recover from this condition is through an assemblage of reminders (Wittgenstein 1958).

Return for a moment to that pivotal moment in philosophy of mind when Wilfrid Sellars introduced his notorious myth of Jones, the genius amongst our Rylean ancestors. What was the point of proposing this myth? As Hutto (this volume) makes clear, it was to show how concepts like belief and desire that purportedly refer to hidden or 'private' psychological states in particular individuals could nevertheless be "primarily and essentially *intersubjective*" (p. 122). According to the myth, such terms are introduced, not ostensibly, but functionally – as characterizing 'episodes' that purportedly play a role in individuals' psychological lives that is analogous to the role already played by various overt speech acts in their public lives of conversational exchange. As Sellars wrote:

[In] the attempt to account for the fact that his fellow men behave intelligently not only when their conduct is threaded on a string of overt verbal episodes...but also when no detectable verbal output is present, Jones develops a theory according to which overt utterances are but the culmination of a process which begins with certain inner episodes...(His) model for these episodes which initiate the events which culminate in overt behaviour is that of overt verbal behaviour itself (Sellars 1997, p. 186).

Sellars' idea was to establish the intersubjective bona fides of intentional state terms ('belief', 'desire', 'thought', etc.) by drawing an analogy between the way these terms are introduced into the language and the way that scientific theory terms are – viz. by appearing in some plausible hypotheses about hidden features of entities that would account for their observable behaviour. However, in certain other ways, the analogy with scientific theory was not well chosen (cf. Hutto, this volume). In the first place, it casts Jones in the role of interacting with his companions as scientist to object, observer to observed, trying to understand what makes them tick. This suggests that the primary purpose for which Jones introduces these concepts – explanation and prediction – is the primary role they will play once they are put into intersubjective *use* – i.e. once Jones teaches his companions how to use this

'theory' in interpreting one another's behaviour. But consider how unlikely this is. After all – and this is the second point of disanalogy – the concepts Jones introduces are, as Sellars himself insists, concepts that have a particular kind of normative structure. For instance, as Sellars notes: "...in characterizing an episode or a state as that of knowing, we are not giving an empirical description of that episode or state, we are placing it in the logical space of reasons, of justifying and being able to justify what one says" (Sellars 1997, p. 169). So clearly Jones and his companions will have a stake in the kind of characterizations they give of one another and in the kind of characterizations they make of themselves. Attributing a state of knowing is no light thing if suddenly it puts the person to whom it's attributed in the position of having to justify, or be able to justify, the various things that one says.

This suggests there ought to be a postscript to the myth of Jones. Maybe it goes something like this. Jones, having had his moment of genius, goes forth to teach his new theory to his contemporaries. They are quick studies, and soon come to understand what patterns of behaviour (overt and covert) are appropriately associated with various kinds of mental states. They get quite good at attributing beliefs and desires to one another for the purpose of explaining and predicting behaviour. And they even find they get quite good at making such attributions to themselves, giving their companions an enormous leg up in their predictive/explanatory endeavours. But after a while an odd thing begins to happen. They find that this new practice of psychological attribution is changing their lives in all sorts of subtle ways. Not only are they able to do a better job of predicting and explaining the behaviour of their companions, they find that others' behaviour and their own is starting to conform more neatly to patterns that are expectable under the attribution of various psychological states. For instance, they find that when they have publicly attributed a belief to themselves, they feel some pressure not to let their companions down in the expectations those companions now form about what they will say or do, and they find themselves responding to that pressure by monitoring what they say or do a little more carefully. Similarly, when others attribute a belief to them, they feel some pressure either to deny the belief, thereby refusing the normative weight of others' expectations, or to accept the attribution and live up to those expectations. In short, they have begun to experience the regulative power of the norms that surround these new folk-psychological concepts. And the upshot is that they no longer can interact with one another as scientist to object, as observer to observed, since the 'objects' themselves – viz. themselves and other agents – are changing under pressure of the "explanatory-predictive" attributions that are made to them.

Of course, this postscript to the myth of Jones is, like the original story, just a myth. As such, it is not meant to suggest anything about the natural evolution of folk psychology from a predictive-explanatory practice to that of a regulative practice. Rather, what I want it to highlight is the fundamental instability of conceiving of folk psychology right from the start as a proto-scientific practice akin to folk-physics, with the only difference between them being that one takes agents as the objects of predictive-explanatory concern and the other focuses on middle-sized, middle-distant physical objects. This analogy might work if all the objects

of folk-psychological attention were simply ignorant of our attempts to make sense of their behaviour by means of our rationalizing belief-desire attributions. But, unlike the non-human creatures to which we occasionally make such attributions, we human beings are not like that. We are neither ignorant of, nor indifferent to, the ways our thought and action get characterized in folk-psychological terms; and whether our aims are friendly or malicious, we have a stake in making ourselves comprehensible to others by way of shaping our own thought and action according to the sense-making norms of our shared folk-psychological practice. We also have a stake in encouraging others to make themselves likewise comprehensible.

But now what precisely is involved in making ourselves comprehensible according to the sense-making norms of a shared folk psychology? Is this equivalent to making ourselves into the image of rational agents, as the intentional stance view of folk psychology might suggest? Certainly it would seem that living up to norms of rationality is an important part of the self- and other-regulative skills we exercise in the context of our folk-psychological interactions. For instance, as I mentioned above, if we attribute a belief, either to ourselves or to others, then there are certain expectations that we form in light of that attribution – expectations of how we or they will behave; and these expectations are shaped by considerations of what it is rational to say or do in light of holding that belief.

Still, without discounting the rationality of many of our norm-governed interactions, this ideal seems far too austere to account for the myriad norm-governed expectations we develop around social behaviour, and the myriad norm-governed ways we learn to act so as to meet (and break) those expectations in sense-making ways. Is it *rational* to dress in a particular way when we appear before others in some authoritative role? In one sense, no. But it is a matter of social usage; so not dressing appropriately sends a message whether we intend it to or not. So it goes for countless other details relating to our daily interactions. Our ways of organizing our environment, our ways of conducting ourselves in spatial orientation to one another, our ways of using voice and body, our ways of dressing, all come to be normatively guided, conveying our thoughts and feelings to one another as much as our explicit communicative acts (Garfinkel 1967; Gergen 1982; Goffman 1959).

Skilled folk psychologists are aware of these nuances of minded behaviour and conduct themselves accordingly, observing or transgressing social norms and routines as suits their current purposes. On the one hand, many of our day-to-day transactions are made meaningful just by our conforming to such norms and routines. On the other hand, we often draw attention to ourselves by saying or doing things that are unexpected in context, creating 'surplus meanings' that others will respond to with interpretive efforts that are guided by an explicit use of the rationalizing (sense-making) apparatus of our shared folk psychology (Bruner 1990; Grice 1989). Thus, as skilled actors in the drama of normalized folk-interactions, we can also make deliberate *use* of unexpected sayings or doings to provoke others, not just to engage in rationalizing narratives that make sense of what we have said or done, but also that make sense of us in ways that we intend.

Of course, as with any complex skilled activity, degrees of proficiency in the normal and transgressive modes of folk-psychological interaction may vary widely, and in varying respects. For in fact, there are a number of skills that folk psychologists must draw upon in their everyday interactions with one another. First, there are skills involved in saying and doing what is generally regarded as normal, reasonable or expectable in context – knowing how to negotiate the complex norms that govern so many aspects of our social-communicative lives. And here the narrative structures of sense-making folk psychology have a role to play in establishing and reinforcing “canonical” patterns of behaviour: By way of these narratives, we learn what “reasonable” actors will think and do in a wide variety of circumstances (Bruner 1990). Still, reasonable actors are not limited to thinking and acting in canonical ways, as we have noted above. But there are skills involved in being transgressive as well – specifically, skills relating to the asking and giving of reasons for untoward behaviour that still manage to place such behaviour within the sense-making ambit of everyday folk psychology. Here the folk-psychological practice of attributing various psychological states finds a new role to play, not just in establishing what *is* canonical, but in negotiating what may count as reasonable even while departing from what is normally expected. The end result of such negotiations may be a reassertion of the canonical, with individuals either pleading special circumstances or conceding that they have not acted appropriately or reasonably; alternatively, there may be a more general revision of what folk psychologists should count as canonical under the circumstances in questions. Much will depend on the sort of folk-psychological explanations given and accepted by the principal actors in these negotiations (for a more nuanced account of these various folk-psychological skills, see Bruner 1990; Hutto 2004).

These observations are meant to highlight the fact, central to the regulative view, that skilled folk psychologists are not just able to read other people in accord with shared norms; they also *work* to make themselves readable in accord with those same norms. And, indeed, they are often inspired – or at least prodded – to do such work by the myriad ways, mentioned passingly in Sect. 8.2, that folk psychologists have to call one another to book when they have failed to perform as expected. This is one of the most telling features that differentiates folk psychology as a regulative practice from what it would be like if it were a mere explanatory-predictive practice, appropriately construed as a proto-scientific theory of behaviour. For in the case of a proto-scientific theory, failure in explanation and prediction should lead to some revision in the theory itself or in the way the theory is applied; it does not lead to putting normative pressure on the “objects” of theoretical attention themselves to encourage them to become more amenable to folk-psychological explanation and prediction on future occasions.

We thus have come to the core idea of the regulative conception of folk psychology. It is that our folk-psychological competence consists in our aptitude for making ourselves understandable *to* one another, as much as on our aptitude for understanding one another. And we do this by making (self and other) regulative use of the norms that govern appropriate attributions of a range of psychological states.

Thus, very often when we make such attributions to one another or to ourselves, we are not engaged in the activity of explaining and/or predicting behaviour at all. We are engaged in the activity of moulding behaviour – cajoling, encouraging, reprimanding, promising and otherwise giving ourselves over to the task of producing comprehensible patterns of well-behaved agency in ourselves and others from a folk-psychological point of view.

Still, it is one thing to lay out a heterodox theoretical position, and it is another to argue for its substantial merits. I do think there are many advantages to this theoretical reorientation, but in the interest of space, I conclude this paper by discussing only four of them. These four points build on each other according to the order in which I discuss them. The first two suggest a shift in the way theorists model individual folk-psychological capacities in order to account for the readiness with which we understand one another as mature folk psychologists; the third discusses how this kind of account connects naturally with an explanation of why folk-psychological knowledge of other human minds has a peculiarly intimate quality, more like projective attunement (as simulation theorists might say) than like theoretically mediated expertise; and, finally, the fourth point explores the developmental implications of this theoretical reorientation.

1. If we learn to govern our behaviour in ways that make us more readable to others, then their work as interpretive agents is greatly reduced. The same is true for us, if they learn to govern themselves likewise. This banal observation challenges an all too common assumption that understanding must require remarkable interpretive skills on the part of each individual if we are to explain the ease with which we ordinarily interact with one another. But just as one person's weight-lifting skills are not so remarkable if they lift a weight with others, so too a person's individual 'interpretive capacities' are not so remarkable if the burden of understanding is normally distributed between them and the person they come to understand (cf. Millikan 1993). We can, of course, show considerable interpretive ingenuity when called upon to do so; and this may require drawing upon fairly generalized knowledge about the psychological springs of human behaviour in addition to whatever particular knowledge we may have of individual peculiarities. However, what is exceptional about these moments is not just their relative infrequency, but also the difficulty and uncertainty with which such interpretive efforts proceed (cf. Hutto 2004). Moreover, if these moments become too frequent, we abandon our interpretive efforts altogether, adopting an 'objective' stance towards those who seem generally unresponsive to folk-psychological norms. We judge such individuals to be: 'eccentric', 'irrational', 'disordered', 'mad', 'compelled', 'discursively unreachable'. At the extreme, such individuals fall outside the realm of subjects we can interact with as free and responsible agents, able to make commitments to us or to understand the commitments we make to them (Bilgrami 1998; Dennett 1987; Pettit 1993; Strawson 1974).
2. If we make ourselves more readable to one another by conforming to shared norms of readability, it follows that much of the work of understanding one another in day-to-day interactions is not really done by us at all, explicitly or implicitly.

The work is done already and carried by the world, embedded in the norms and routines that structure such interactions (cf. Hutto, this volume). Hence, it is not just that we often behave in ways that make sense from a folk-psychological point of view; it is that many of our sense-making ways of behaving already have their significance built into them. Indeed, this foundation of pre-determined meaning dramatically expands our resources for what we can make meaningful, not just by ordinary recursive methods, but as already noted by creative transgression. That is, in breaking with norms and routines, we expect our actions to signal the need for special interpretation. But, equally, we generally only succeed in conveying what we mean when such interpretations can be reasonably guided by the meaning of whatever norms and routines are transgressed (metaphors, for instance, only work if the literal meaning of the words used serve as a plausible guide to what the speaker means). When we develop as folk psychologists, we no doubt hone our interpretive skills; but, more importantly, we come to live in a world where the kind of interpretive work we need to do is enormously enhanced by how much meaning our interactions already carry for us and carry because of the way we habitually conform to norms that invest our actions with common meaning. Becoming a skilled folk psychologist is, in this sense, no different from becoming a native speaker within a linguistic community. The ease with which we speak comprehensibly and understand others is based on the practices we share. Of course, the relationship between conforming to folk-psychological norms and conforming to linguistic norms is closer than mere analogy: in becoming proficient speakers of our native tongue, we become able folk psychologists, and vice versa. These two skills are importantly intertwined, since so many of our methods of being comprehensibly minded are embedded in the semantics and pragmatics of our language.

3. One of the complaints that simulation theorists have long made against rival theory theorists is that the latter make no attempt to account for the special character of our folk-psychological knowledge of other human beings. We seem to have a special understanding of the way they tick that is quite unlike our theoretical understanding of other objects, and even quite unlike our supposed folk-psychological knowledge of other non-human creatures. How is this special character to be explained?

On the regulative view, I think the answer is straightforward. Folk-psychological expertise is *insider* expertise, the 'first-person' expertise of someone who is skilled at reading others in accord with shared norms because she is skilled at living herself in accord with those norms, and vice versa. As with the insider expertise of linguistic fluency, these two capacities come together. Indeed, it would be more accurate to say they are one and the same capacity exercised in two different respects: *speaking*, on the one hand, and *listening*, on the other – or, more generally, *expressing* and *attending to what is being expressed*. These are two sides of exercising a skill or competency; they are the two sides of what Gilbert Ryle called 'knowing how':

If understanding does not consist in inferring, or guessing, the alleged inner-life precursors of overt actions, what is it? If it does not require mastery of psychological theory together with the ability to apply it, what knowledge does it require? We saw that a spectator who cannot play chess also cannot follow the play of others; a person who cannot read or speak Swedish cannot understand what is written or spoken in Swedish; and a person whose reasoning powers are weak is bad at following and retaining the arguments of others. Understanding is part of knowing *how*. The knowledge that is required for understanding intelligent performances of a specific kind is some degree of competence in performances of kind. The competent critic of prose-style, experimental technique, or embroidery, must at least know how to write, experiment or sew. Whether or not he has also learned some psychology matters about as much as whether he has learned any chemistry, neurology or economics. These studies may in certain circumstances assist his appreciation of what he is criticising; but the one necessary condition is that he has some mastery of the procedures, examples of which he is to appraise. For one person to see the jokes that another makes, the one thing he must have is a sense of humour and even that special brand of humour of which those jokes are exercises (Ryle 1949, p. 54).

Analysing normal folk-psychological competence as a kind of practical know-how makes its special character quite unmysterious. The way we 'get' what another person is up to is by knowing what it's like to be the kind of person whose sayings and doings are expressive of ways of being minded according to the norms we share. This attunement does not depend on putting ourselves in others' shoes. We are already in their shoes, as they are in ours. This doesn't mean that we can always express our folk-psychological know-how as others do. Hence their thoughts and actions may be surprising, intriguing, innovative, instructive from our own point of view. Nevertheless, they make sense to us because we have some competence in being a person *like that*: our understanding is schooled in precisely the way our own expressive performances are schooled, so we feel in our bones what it's like – what it *would* be like – to express ourselves in word or deed as they have done. Of course, others can sometimes act in ways that make no sense to us; but, then, so too can *we* sometimes act in ways that make no sense to us either. In both cases, our performances have failed to live up to norms that transform mere doings into actions that have meaning for us. In both cases our relation to the 'other' changes, from being someone on the inside familiar with the sense of agency expressed by our performances, to being on the outside where that sense of familiar agency fails. Needless to say, such failures are more disconcerting in our own case. But this is not because we have failed to *perceive* something that should be obvious to us from our first person point of view – viz. the causal springs of our own behaviour. It is because those ways of behaving, which we know to come from us, are not second nature to us *as ways of being minded*. Our ordinary competence for acting in comprehensibly self-regulated ways has somehow failed and we have limited resources for making sense of such failures except as departures from what we ought to do, and can work to try to do better in keeping with the normative dictates of our folk-psychological know-how (cf. McGeer 1996; McGeer and Pettit 2002).

4. Even supposing this skill-based account of folk-psychological expertise is on the right track, there remains the developmental question of how the norms which govern our shared ways of being minded become habitual for us, i.e. how they

become 'second nature'. Must we begin life with some innate sense of the special qualities of human behaviour in order to become conversant in the norms which govern our daily interactions? Or do we develop this sense as a consequence of becoming conversant in the norms? Here, too, a satisfying answer to such questions depends on keeping all parties involved in the process of normal psychological knowing clearly in view – namely, the child as developing folk psychologist and other people as the objects of her developing folk-psychological knowledge. For, as in the non-developmental context, there is work that must be done on each side in order for this kind of knowing to succeed, although the work that's done will naturally be of a somewhat different kind reflecting the peculiarities of the developmental situation.

To begin with the child as a developing folk psychologist, a number of empirical studies provide substantial evidence of an innate human disposition to respond differentially to social stimuli. From birth, infants will orient preferentially towards the human face and voice, seeming to know that such stimuli are particularly meaningful for them. Moreover, they register this connection actively, imitating a variety of facial gestures that are presented to them – tongue protrusions, lip pursings, mouth openings. They will even try to match gestures with which they have some difficulty, experimenting with their own faces until they succeed. When they do succeed, they show pleasure by a brightening of their eyes; when they fail, they show distress. In other words, they not only have an innate capacity for matching their own kinaesthetically experienced bodily movements with those of others that are visually perceived; they have an innate drive to do so. That is, they seem to have an innate drive to imitate others who they judge to be 'like me' (Meltzoff and Gopnik 1993; Meltzoff and Moore 1977, 1983, 1994, 1977).

Within a few months, infants will use this awareness of their essential link with others in yet more elaborate ways, imitating simple actions others perform on objects by nine months and more elaborate goal-directed activities by 18 months. Moreover, studies indicate that by 18 months babies are not just imitating what others actually do; they are performing their actions based on their understanding of what others mean to do. That is, they read through others' 'failures', improving on their actions in order to accomplish unmet, but apparently intended, goals (Meltzoff 1995). (For a more elaborate summary of this progression, see Gopnik et al. 2000.)

By this age, babies also show clear signs of using others' emotional responses to the world as a guide for their own behaviour, avoiding things that elicit fear, disgust or anger in others and approaching those in which others manifest interest or delight (Campos and Sternberg 1981; Repacholi 1998). They engage in 'joint attention' behaviours, following another's gaze or point to an object outside their visual field, and use pointing gestures themselves to direct another's attention in similar fashion. While some of these pointing gestures are 'instrumental', aimed at getting the object indicated, others seem clearly intended to do nothing more than elicit the other's response to something shared (Bates et al. 1975). In these ways and many others, even very young children show a basic readiness to learn from others' expressions and actions, interpreted therefore as having particular import

for themselves. As Bruner says, "we come initially equipped, if not with a "theory" of mind, then surely with a set of predispositions to construe the social world in a particular way and to act upon our construals. This amounts to saying we come into the world already equipped with a primitive form of folk psychology" (Bruner 1990, p. 73).

Now what about the objects of this primitive form of folk psychology? Though infants clearly respond differentially to social stimuli, it is crucial to keep in mind that they are helped along at every stage of this developmental trajectory by those who provide such stimuli. Human infants do not confront a world of 'unstructured experience', and not just because they have innate mechanisms for ordering whatever experience is given to them. Their own ordering capacities are given a significant boost, not just once but again and again over the course of development, by parents who shape their children's experience by involving them in structured interactions governed by the sense-making norms of folk psychology. That is to say, parents treat their children as intentional participants in practices that initially extend beyond their intentional competence, leaving the parents to maintain, and even exaggerate, the formal structure and affective import of such interactions for both. In fact, parents will often treat their children as initiating just such interactions, elaborating on what they do in ways that direct and enrich their children's initial intentions. Jerome Bruner has called this sense-making structuring of activity, 'parental scaffolding' (Bruner 1983). It begins in early infancy, when child and parent engage in 'conversational dances', trading vocalizations, gestures and expressions that the parent ensures are made 'conversationally relevant' to one another, not just by rhythm and affective tone, but often through responsive imitation (Brazelton and Tronick 1980; Kaye 1982; Trevarthen 1979). These mutual imitation games, delighted in by child and parent alike, are the primary means by which the child identifies him- or herself as like another and so, eventually, as a person whose thoughts and actions belong to the kind that persons produce (Meltzoff and Gopnik 1993). They are also the primary means by which the parent moulds the child to react, think and feel about things as persons do. As Meltzoff and Gopnik remark:

...mutual imitation games are a unique and important constituent of early interpersonal growth. Adults are both selective and interpretive in the behaviour they reflect back to the child. They provide interpretive imitations to their infants, reflections that capture aspects of the infant's activity, but then go beyond it to read in intentions and goals to that behaviour...This, in turn, leads the infant beyond his or her initial starting point. Likewise, selected actions, especially those that are potentially meaningful in the culture, will be reflected back [to the infant] more often than others...(Meltzoff and Gopnik 1993, p. 349).

Thanks to these kinds of structured and progressively more sophisticated interactions with others, the experiences children have and the responses they are called to give shape their own sense of agency, both viscerally and conceptually. In the course of normal development, children are thus bootstrapped into regulating their own experiences, feelings, thoughts and actions, not just in concert with others, but in accord with the intersubjective norms of a shared psychological practice. In a word, they become comprehensible agents, i.e. good folk-psychological 'objects'; but the

manner in which they become such agents, no less than what they become, accounts in important ways for their capacity to understand others 'like them', i.e. others in whose image they have been substantially made.

NOTES

¹ For a few examples of theorists who depart from this norm, see Bruner (1990), Hutto (1999, 2004), McGeer (1996, 2001), McGeer and Pettit (2002), Pettit (1978).

² In what follows, I will focus on Dennett's account for simplicity's sake, but I take his views to be broadly representative of a family of functionalist views in the philosophy of mind.

³ A closer examination of the social psychological evidence does not readily support this simulationist argument. In particular, there are many instances where failures of rationality do indeed subvert the folk psychologist's efforts to predict behaviour – and these failures are notable since folk psychologists seem to anticipate that others will behave more rationally than they actually do. In fact, folk psychologists seem to anticipate that they *themselves* will behave more rationally than they actually do once they are put into circumstances that had previously only been described to them (for instance, see Loewenstein and Adler 1995 on subjects' mis-anticipation of the 'endowment effect'; For a nice discussion of this point, see also Nichols 2003). The problem is: why should there be this bias towards rationality if folk psychologists are making their judgements by imaginatively projecting themselves (cognitive warts and all) into the relevant situations?

⁴ Parts of this section draw on ideas I have developed in McGeer (2001, esp. pp. 117–123). For further reference, see also McGeer (1996) and McGeer and Pettit (2002).

REFERENCES

- Bates E et al. (1975) The acquisition of preformatives prior to speech. *Merrill-Palmer Q* 21:205–26.
- Bekoff M et al. (eds) (2002) *The cognitive animal*. MIT Press, Cambridge, MA.
- Bilgrami A (1998) Self-knowledge and resentment. In: Wright C, Smith B, Macdonald C (eds) *Knowing our own minds*. Oxford University Press, Oxford.
- Brazelton TB, Tronick E (1980) Preverbal communication between mothers and infants. In: Olson DR (ed) *The social foundations of language and thought*. Norton, New York.
- Browne D (2004) Do dolphins know their own minds? *Biol Philos* 19(4):633–653.
- Bruner J (1983) *Child's talk: learning to use language*. Norton, New York.
- Bruner J (1990) *Acts of meaning*. Harvard University Press, Boston.
- Byrne RW, Whiten A (1988). *Machiavellian intelligence: social expertise and the evolution of intellect in monkeys, apes and humans*. Oxford University Press, Oxford.
- Campos JJ, Sternberg CR (1981) Perception appraisal and emotion: the onset of social referencing. In: Lamb ME, Sherrod LR (eds) *Infant social cognition*. Erlbaum, Hillsdale, NJ.
- Carpenter M et al. (1998) Fourteen-through 18-month-old infants differentially imitate intentional and accidental actions. *Infant Behav Dev* 21(2):315–330.
- Cheney DL, Seyfarth RM (1992) Characterizing the mind of another species. *Behav Brain Sci* 15:172–179.
- Churchland P (1979) *Scientific realism and the plasticity of mind*. Cambridge University Press, Cambridge.
- Currie G, Ravenscroft I (2003). *Recreative minds*. Oxford University Press, Oxford.
- Davidson D (1984) *Inquiries into truth & interpretation*. Oxford University Press, Oxford.
- Davies M (1994) The mental simulation debate. In: Peacocke C (ed) *Objectivity, simulation and the unity of consciousness*. Oxford University Press, Oxford.
- Dennett D (1978) *Brainstorms*. Bradford Press, Montgometry, VT.
- Dennett D (1987) *The intentional stance*. MIT Press, Cambridge, MA.
- Dennett D (1991) Real patterns. *J Philos*:27–51.

- Fodor J (1987) *Psychosemantics*. MIT Press, Cambridge, MA.
- Garfinkel H (1967) *Studies in ethnomethodology*. Prentice-Hall, Englewood Cliffs, NJ.
- Gergely G et al. (1995) Taking the intentional stance at 12 months of age. *Cognition* 56(2):165–193.
- Gergen KJ (1982) *Toward transformation in social knowledge*. Springer, New York.
- Goffman E (1959) *The presentation of self in everyday life*. Anchor Books, New York.
- Goldman A (1989) Interpretation psychologized. *Mind Lang* 4:161–185.
- Goldman A (1992) In defense of the simulation theory. *Mind Lang* 7(1/2):104–119.
- Goldman AI (1993) The psychology of folk-psychology. *Behav Brain Sci* 16:15–28.
- Gopnik A et al. (2000) Early theories of mind: what the theory theory can tell us about autism. In: Baron-Cohen S, Tager-Flusberg H, Cohen DJ (eds) *Understanding other minds: perspectives from developmental cognitive neuroscience*. Oxford University Press, Oxford, pp 50–72.
- Gordon R (1986) Folk psychology as simulation. *Mind Lang* 1:158–171.
- Gordon R (1992) The simulation theory: objections and misconceptions. *Mind Lang* 17:11–34.
- Grice HP (1989) *Studies in the way of words*. Harvard University Press, Cambridge, MA.
- Heal J (1998) Co-cognition and off-line simulation: two ways off understanding the simulation approach. *Mind Lang* 13(4):477–498.
- Heal J (2003) Mindreading: an integrated account of pretence, self-awareness, and understanding other minds. *Mind* 114(453):181–184.
- Heider F, Simmel M (1944) An experimental study of apparent behavior. *Am J Psychol* 57:243–259.
- Heyes C (1998) Theory of mind in nonhuman primates. *Behav Brain Sci* 21:101–148.
- Hutto D (1999) *The presence of mind*. Benjamins, Amsterdam.
- Hutto D (2004) The limits of spectatorial folk-psychology. *Mind Lang* 19(5):548–573.
- Hutto D (2007) Folk-psychology without theory or simulation. In: Hutto D, Ratcliffe M (eds) *Folk psychology re-assessed*. pp 115–135.
- Jackson F (1992) Block's challenge. In: Campbell K, Bacon J, Rhinehart L (eds) *Ontology, causality, and mind: essays on the philosophy of David Armstrong*. Cambridge University Press, Cambridge.
- Jackson F, Pettit P (1990a) In defence of folk psychology. *Philos Stud* 57:7–30.
- Johnson SC (2000) The recognition of mentalistic agents in infancy. *Trends Cogn Sci* 4(1):22–28.
- Johnson S et al. (1998) Whose gaze will infants follow? The elicitation of gaze-following in 12-month-olds. *Dev Sci* 1(2):233–238.
- Kaye K (1982) *The mental and social life of babies: how parents create persons*. University of Chicago Press, Chicago.
- Lewis D (1983) *Philosophical papers*, vol 1. Oxford University Press, Oxford.
- Loewenstein G, Adler D (1995). A bias in the prediction of tastes. *Econ J* 105:929–937.
- McGeer V (1996) Is "self-knowledge" an empirical problem? Renegotiating the space of philosophical explanation. *J Philos* 93:483–515.
- McGeer V (2001) Psycho-practice, psycho-theory and the contrastive case of autism. *J Conscious Stud* 8(5–7):109–132.
- McGeer V, Pettit P (2002). The self-regulating mind. *Lang Commun* 22(3):281–299.
- Meltzoff AN (1995) Understanding the intentions of others: re-enactment of intended acts by 18-month-old children. *Dev Psychol* 31: 838–850.
- Meltzoff AN, Gopnik A (1993) The role of imitation in understanding persons and developing a theory of mind. In: Baron-Cohen S, Tager-Flusberg H, Cohen DJ (eds) *Understanding other minds: perspectives from autism*. Oxford University Press, Oxford, pp 335–366.
- Meltzoff AN, Moore MK (1977) Imitation of facial and manual gestures by human neonates. *Science* 198:75–78.
- Meltzoff AN, Moore MK (1983) Newborn infants imitate adult facial gestures. *Child Dev* 54(3):702–709.
- Meltzoff AN, Moore MK (1994) Imitation, memory and the representation of persons. *Infant Behav Dev* 17(1):83–99.
- Meltzoff AN, Moore MK (1997) Explaining facial imitation: a theoretical model. *Early Dev Parent* 6:179–192.
- Millikan RG (1993) *White Queen psychology and other essays for Alice*. MIT Press, Cambridge, MA.

- Morton A (1980) *Frames of mind: constraints on the commonsense conception of the mental*. Clarendon Press, Oxford.
- Nichols S (2003) Folk psychology. In: Nadel L (ed) *Encyclopedia of cognitive science*. Nature, London.
- Pepperberg IM (1999) *The Alex studies: cognitive and communicative abilities of grey parrots*. Harvard University Press, Cambridge, MA.
- Pettit P (1978) Rational man theory. In: Hookway C, Pettit P (eds) *Action and interpretation: studies in the philosophy of the social sciences*. Cambridge University Press, Cambridge, pp 43–63.
- Pettit P (1993) *The common mind: an essay on psychology, society and politics*. Oxford University Press, New York.
- Povinelli D (1996) Chimpanzee theory of mind? The long road to strong inference. In: Carruthers P, Smith P (eds) *Theories of mind*. Cambridge University Press, Cambridge.
- Povinelli D, Eddy TJ (1996) What young chimpanzees know about seeing. *Monogr Soc Res Child Dev* 61(3):1–190.
- Premack D, Woodruff G (1978) Does the chimpanzee have a theory of mind? *Behav Brain Sci* 4:515–526.
- Repacholi BM (1998) Infants' use of attentional cues to identify the referent of another person's emotional expression. *Dev Psychol* 34:1017–1025.
- Ryle G (1949) *The concept of mind*. University of Chicago Press, Chicago.
- Sellars W (1997) *Empiricism and the philosophy of mind*. Harvard University Press, Cambridge, MA.
- Strawson P (1974) *Freedom and resentment. Freedom and resentment and other essays*. Methuen, London.
- Trevarthen C (1979) Communication and cooperation in early infancy: a description of primary intersubjectivity. In: Bullowa M (ed) *Before speech: the beginning of interpersonal communication*. Cambridge University Press, New York.
- Watson JS (1979) Perception of contingency as a determinant of social responsiveness. In: Thoman EG (ed) *Origin's of the infant's social responsiveness*. Erlbaum, Hillsdale, NJ, pp 33–64.
- Wittgenstein L (1958) *Philosophical investigations*. Blackwell, Oxford.

FOLK PSYCHOLOGY RE-ASSESSED

Edited by

DANIEL D. HUTTO

University of Hertfordshire, U.K.

and

MATTHEW RATCLIFFE

University of Durham, U.K.

 Springer

A C.I.P. Catalogue record for this book is available from the Library of Congress.

(SW)
HM 251
.F644
2004

ISBN 978-1-4020-5557-7 (HB)

ISBN 978-1-4020-5558-4 (e-book)

Published by Springer,
P.O. Box 17, 3300 AA Dordrecht, The Netherlands.

www.springer.com

Printed on acid-free paper

All Rights Reserved

© 2007 Springer

No part of this work may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, microfilming, recording or otherwise, without written permission from the Publisher, with the exception of any material supplied specifically for the purpose of being entered and executed on a computer system, for exclusive use by the purchaser of the work.