Commentary

Social cognition and social practice

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Research on the early development of joint attention and social cognition has been one of the most fruitful and lively areas of developmental inquiry during the last years. Racine and Carpendale (R&C; 2007) have written a valuable and timely review of the relevant research in this area. In particular, they have done an excellent job in supplying a careful survey of empirical results, debates about contested interpretations of these results and theoretical approaches to infant development.

However, the main purpose of R&C’s paper is to develop a – Wittgenstein-inspired, as they say – critique of most theoretical approaches to infant social and cultural development. Though very diverse in scope and nature, in R&C’s opinion, these approaches (oversimplifying drastically, for the purpose of this paper I’ll call them the ‘standard approaches’) share the assumption that it is infants’ developing social cognitive abilities, their developing understanding of others and themselves, that lays the foundation for cultural development. R&C’s central claim is that these standard approaches are flawed because they essentially rest on questionable conceptual presuppositions, particularly a Cartesian picture of the mind as inner entity.

This, I think, is a mistake. R&C are right that some standard approaches include assumptions that might be problematic. For example, some approaches, in which uncritically employing the notion of (introspectionist) simulation as a potential foundation of infants’ interpretation of others might make the argument-from-analogy

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1 I am sceptical whether their approach reflects an appropriate interpretation of Wittgenstein’s philosophy of psychology, for example, on ‘the inner’ and on the notion of ‘criteria’ for ascribing mentality. Particularly the latter is a notoriously difficult issue: first, the behavioural evidence for ascribing mentality are not just symptoms, i.e. contingently related to the mental states to be ascribed; but, second, neither do they render a (logical) behaviourist reading, that is, the behavioural description does not have the same meaning as the mentalistic description. Many of the disputes over Wittgenstein’s philosophy of psychology arise out of different interpretations of this notion of criteria (see, e.g. Hacker, 1972, chapter 10). Behaviourist mis-readings of Wittgenstein’s are mostly founded on an exaggeration of the first point. And though R&C definitely do not propose a behaviourist programme, they do, I think, sometimes fall into a similar trap when they talk as if ascribing an ability to understand something and describing an ability to participate in an activity are one and the same thing. But as this is not the place to get into exegetical issues, I will not dwell on these points further here.

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mistake long pointed out by Wittgenstein, Strawson and others: one cannot first ascribe some state to oneself and then project it onto others. Formally speaking, a predicate (e.g. ‘believes’) that applicable to one person only (oneself) is not a predicate at all (Strawson, 1959; for non-introspectionist approaches which are well aware of this problem and try to avoid it, see Gordon, 1995, 1996). Or some approaches might well take an uncritical notion of ‘representation’ as internal brain-writing from general cognitive psychology and thereby inherit all its problems.

But the point is that these are mostly not essential problems of these approaches, that is, the approaches can stand and can be re-cast without these problematic assumptions. R&C here point out interesting conceptual problems widespread in psychological theorizing, but they do not thereby jeopardize standard approaches to infant social development.

To see this, let us step back and start with the basic phenomena (and move from there to the different intuitions and interpretations they give rise to). Humans are special, in that they are cultural and language-using beings. Ontogenetically, infants from their second year begin to actively participate in culture and language-use: by imitation they learn to participate in shared social practices with others, learn to treat objects in conventional ways and learn to participate in linguistic practice. In addition, this entry into culture and discourse has its precursors; importantly, before infants learn to talk, at around one year of age, they begin to manifest a bundle of qualitatively new behaviours, broadly subsumed under the rubric ‘joint attention’: they systematically and differentially imitate others’ acts, they take into account others’ perceptual access to the world, they appropriately respond to and produce gestures (in particular, pointing) and they engage with others in simple collaborative acts (Carpenter, Nagell, & Tomasello, 1998; Tomasello, Carpenter, Call, Behne, & Moll, 2005).

Apart from humans, no other species lives in a human-like culture with traditions, normatively structured practices and institutions, and no other species uses language. In addition no other species can be brought to become cultural beings and language users even with excessive training, as decades of failed enculturation attempts of apes show. No matter how much chimpanzees or bonobos are pressed into human activities, they do not participate in them as human children from their second year do.

These are the basic phenomena, and they surely call for an explanation. The common denominator about which everyone agrees is probably that human infants have, and other species do not have, biologically based propensities and abilities to participate in cultural activities. The dispute begins over the question how to characterize the propensities and abilities.

The commonsensical intuition behind many of the current standard pictures of infant development in this area is that the underlying abilities humans have and other species lack are abilities of a nascent understanding of each other as persons, i.e. not only as self-propelled objects, but as subjects perceiving the world and acting in it, and therefore as potential partners for inter-subjectivity, as potential co-operators. These forms of understanding become manifest first in behaviours broadly subsumed under ‘joint attention’.

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2 In fact, the picture probably is more complicated: recent research (Call, Hare, Carpenter, & Tomasello, 2004; Hare, Call, Agnetta, & Tomasello, 2000; Hare, Call, & Tomasello, 2001) suggest that at least some apes might be able to understand each other as individual intentional agents ( perceivers and actors) in a simple sense, but are incapable of entertaining the shared, collective WE-intentionality (e.g. Searle, 1995) with others that lays the basis for human social and cultural life (Tomasello & Rakoczy, 2003; Tomasello et al., 2005).
Let us look at an example to see in more detail how we, in our commonsensical folk psychology, describe them. Infants see an adult perform a weird act, switching on a lamp with his head (Gergely, Bekkering, & Király, 2002). For some infants, the adult is unable to use his hands (because they were under a blanket); for others, his hand would have been usable. The infants in the former case imitate such that they switch on the lamp with their head too, whereas infants in the latter case use their hands. The natural folk psychological description of this is that the infants understood (in some sense) what the adult was up to – that he wanted to switch on the lamp, and in the former case obviously wanted to do so with his head – and they could do ‘the same’ (switch on light/switch on light with head).

The standard approaches to infant development follow common sense in describing infants with folk psychological vocabulary: in describing infants’ developing social understanding as explanatory for social and cultural development, that is, as the ontogenetic bases for developing into complex social life they ascribe (social) cognitive abilities to infants.

Now it is crucial that this commonsensical picture should not be confused with any more philosophically controversial claim which R&C seem to read into it, for example, the understanding ascribed is reflective and that it involves fully fledged conceptual abilities or even a solipsistic language of thought.3 Or that infants’ understanding of others’ mentality involves their postulating inner entities in a Cartesian theatre called ‘mind’.

The commonsensical picture and the standard pictures which are an extension of it are innocent on these issues, as innocent as common sense is about mentality itself – luckily, one should say. Because if common sense and psychology would have to await final conceptual clarifications in the philosophy of psychology, there would not be much common sense and psychology. For example, if we could not ascribe mental states to each other in daily life and in psychology until the philosophy of mind had supplied an agreed upon analysis of the semantics of mental state terms (behaviourist, functionalist, unanalysable or whatever), we would have to be silent for probably quite a long while. In other words, common sense and psychology can proceed as usual in their ascription of mental states, while philosophers quarrel over analyses of such talk according to their favourite mental state semantics (that does not mean, though, that philosophical analyses cannot sharpen our conceptual resources, for example, regarding difficult cases such as pre- and non-linguistic thought; see below).

Notice that this is of double importance in the present context: on the one hand, we ascribe a certain form of understanding of cognitive abilities to human children (and philosophical analysis is concerned with what that means or turns out to be) and, second, the understanding we ascribe to children is of people’s mentality, so the same point applies to the content of the understanding we ascribe.

In sum, the common sense picture does not carry with it any commitment to controversial philosophical claims.4 Furthermore, it is highly compatible, for example, with the contention that full-fledged conceptual abilities are acquired with the ability to use corresponding language.

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3 Modularity theories following Fodorian ideas in fact seem to subscribe to the latter two claims. But apart from them, none of the other ‘standard approaches’ does.

4 Possibly, with the following exceptions to the negation of which common sense seems committed: eliminativism, for example, claims that common sense psychology is radically mistaken and should therefore be eliminated. Another exception might be psychological nominalism, the thesis that understanding is being able to use corresponding language. This thesis seems to conflict with common sense’s liberal ascription of thought to pre- and non-verbal creatures (see below).
Now what might be objected to this commonsensical picture? One extreme position in opposition to it, which R&C at some points seem to flirt with, is a thoroughgoing psychological nominalism (e.g. Davidson, 1982; Sellars, 1963): to understand some issue means to be able to play the corresponding language game about the issue. To understand someone as perceiving and acting means to be able to play language games of ascribing perception and action. All simpler abilities of animals and infants, for example, are mere discriminative or procedural abilities, that is, non-cognitive.

While psychological nominalism is surely plausible when full-fledged conceptual thought is concerned, or regarding some domains of thought (e.g. ‘What does it mean to be able to think about numbers bigger than 1,000,000?’), I do not think it is a helpful thesis for describing cognitive development generally, and R&C do not either, probably. Otherwise, their argument would be merely three propositions long: understanding others as persons means to be able to play the requisite language games; 1-year-olds do not play these language games; and so 1-year-olds do not understand others as persons. Developmentally, the ability to play the requisite language games would remain totally primitive and not subject to further explanation.

But at some places R&C sound as if they were opting for a related, though less linguistic, position: understanding others as persons just means being able to participate in a requisite (partly non-linguistic) practice, and this latter ability is to be characterized as non-cognitive, primitive and not further explainable. Humans develop this ability, other animals do not – end of story.

Here I am unsure how much of the controversy R&C present points to really substantial disagreement, and how much is a purely verbal matter (what some call cognitive – though not yet fully fledged conceptual abilities, others just call non-cognitive ones). But in any case I think there are good reasons for insisting that the abilities explanatory of infants growing into culture are cognitive ones, nascent abilities to understand one another as persons. The main reason is that infants do not only react discriminatively to other persons’ acts, or display procedural abilities how to behave towards them. Rather, they act in response to others in ways which are inferentially appropriate from an intentional stance (speaking loosely of ‘inferences’), and which display a systematic and general structure (for the role of generality in ascribing cognitive abilities, see Evans, 1982). To illustrate this, let us come back to the example of imitation: infants do not only discriminate between intentional and unintentional acts or between different intentional acts. They imitate differentially and in a way which is inferentially appropriate given an intentional description of the model’s behaviour: ‘He wanted to do X, but had only limited means. So I can do X, but use simpler means which he did not have’ (in the Gergely et al. example mentioned earlier). Furthermore, infants show such appropriate imitation in a general and systematic way in a variety of paradigms, for example, when differentially imitating intentional vs. accidental acts (Carpenter, Akhtar, & Tomasello, 1998) or re-enacting failed attempts (Meltzoff, 1995). Of course, this does not imply that 1-year-olds have a full-fledged conceptual grasp of ‘intentional action’, let alone that they have our adult concept of intending – they surely do not, given that our concept of intentional action essentially involves many inferential connections, for example, to beliefs that are beyond the reach of children at this age. But though not yet full-fledged conceptual, these abilities are best described as some (proto-conceptual) form of interpersonal understanding nevertheless (however, that might then be spelled out in detail; see below).

In fact, at times in the paper R&C argue in a way that seems to me to be consistent with such a line of reasoning. In particular, the passages about the ‘membership model’
regarding the development of understanding sound utterly compatible with many standard approaches that grant infants some nascent form of social understanding without thereby ascribing to them full-fledged conceptual abilities yet.

So social understanding can come in different degrees and on different levels. What urgently needed – and it is one of the big merits of this paper that it points towards this – are clearer analyses regarding such levels of understanding ascribable to pre- and non-linguistic creatures.

Full-fledged conceptual thought requires generality, systematicity and compositionality (a given concept can be used in general ways in different thoughts and contexts, and can be combined systematically with others to yield new propositions; Evans, 1982), and inferential integration (concepts are partly constituted by the inferences they license; Brandom, 1994; Sellars, 1963). The big challenge now is to find suitable analogous criteria for the ascription of simpler, not yet fully conceptual forms of understanding. Recent work in psychology (e.g. Karmiloff-Smith, 1992) and philosophy (e.g. Bermudez, 2003; Clark & Karmiloff-Smith, 1993; Hurley, 2003) has just begun to address this challenge.

Furthermore, what we finally need is a differentiated, dialectical and a truly developmental picture of the ontogeny of thinking and speaking: which ways of pre-conceptual social understanding enable the entry into discursive practices, and in which ways do the latter transform individual cognition (e.g. Tomasello & Rakoczy, 2003)?

And finally, we still need clearer analyses regarding understanding of different subject matters, for which matters are there different levels of understanding (from pre-conceptual to full-fledged conceptual) and for which does it not make sense to speak of prelinguistic understanding? Or to leave the last word to Wittgenstein: ‘A dog believes his master is at the door. But can he also believe his master will come the day after tomorrow? And what can he not do here?’ (1953, p. 174).

References