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Consciousness and Cognition

journal homepage: www.elsevier.com/locate/concog

Reply

What made me want the cheese? A reply to Shaun Gallagher and Dan Hutto ☆

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I would like to thank Shaun Gallagher and Dan Hutto for taking the time to write these insightful responses. I will try to address three of their points. First, what should the precise status of the interaction process in studying social cognition be? Do I really mean that the interaction is the only important thing to study about social cognition? Second, and intimately related to this is the question of the individual: doesn't what happens in the individual play a crucial role in social understanding? The third is a point about methodology: how to make an enactive/embodied point about social cognition in a landscape dominated by individualist and cognitivist approaches?

Concerning the status of the interaction process, I stand by the assertion that studying it is *the* starting point for understanding social cognition. The point of this is not that the interaction details are something to fit into an existing picture. It is that centering on the interaction changes the research landscape and turns the endeavour of understanding social cognition on its head. The interaction process indeed is not the be all and end all of social cognition. However, putting it at the centre of the map opens up a new vantage point, a different way of studying social cognition, aspects of which are the history, needs, state, emotions, goals and capacities of the individual, neurology, the influence of context, society and culture, and so on. There is also the question 'what makes social cognition precisely *social*?' In traditional research, this was defined simply by the object of cognition being someone else. But isn't social about a certain *kind* of interaction?

In taking the social interaction process seriously, we found that it can become autonomous – in a strict formal sense (De Jaegher & Di Paolo, 2007). If this is the case, the idea that meaning and intentionality are situated with individuals changes from a given into a question. In traditional approaches, the individual represents the 'reality out there' and this is where meaning comes from. One big problem with this is that it does not ground meaning. Taking instead the hypothesis that the interaction process can become autonomous to mean that it itself has intentions would of course be silly. What does become possible on such a view is to spell out in detail how intentions can form and transform in social interaction. It allows us to envisage meanings not needing to be exclusively individually mediated, but that maybe they come into existence in a way more closely related to how waves form in the ocean. For instance, a couple of days ago I was having dinner with my partner and a friend. At some point, I was cutting some cheese for myself. I noticed my partner looking at the cheese and thought I would offer him some, because it looked like he might want some. When I did so, he accepted it. I asked him whether he had wanted it while looking at the cheese before (i.e. while I had noticed him looking at it and he had noticed me looking at him and it), and he said that he had not really. The desire for cheese in this case only crystallised at the point of accepting the slice from me. This indicates that fresh intentions can sprout from interactions and that what may often happen is that we back-track, newly emerged meaning in hand, and 'stick' this meaning onto our previous actions. It may have looked like he wanted the cheese, since I noticed him looking at it before, but in fact, the desire only took shape at the point of receiving it. Noticing him looking at the cheese and thinking that he might want some may have been a kind of direct perception. On the other hand, it was not just that he looked at the cheese, we also looked at each other and back and forth to the cheese, and he also to our friend. If anything in that coordination of gazes and actions had been different, I would probably not have developed the inclination to give him some. Hence illustrating that *the precise coordination* in an instance of interaction makes a difference to its significance for the participants.

☆ Reply to Gallagher, S. (2009). Deep and dynamic interaction: Response to Hanne De Jaegher. *Consciousness and Cognition*, 18, 547–548 and Hutto, D. (2009). Interacting? Yes. But, of what kind and on what basis? *Consciousness and Cognition*, 18, 543–546.

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In his retelling of the corridor example (Gallagher, 2009, ms. pp. 2–3), Gallagher refocuses the reader's attention on perceptual capacities for picking up on intentions as they are displayed to us, while implicitly underplaying the role of the interaction, although this was precisely the point of this example in our paper (De Jaegher & Di Paolo, 2007). This change of emphasis may not always work, for instance when the meeting happens just around a blind corner, and we find ourselves already in interaction before we can even start to directly perceive each other's intentions. While Gallagher's view moves on from traditional approaches in bringing intentions out of the 'black box' of our minds – minds, for Gallagher, are not opaque and intentions are 'out there' – and in giving us access to this meaning through our 'embodied practice' (see e.g. Gallagher, 2001, 2008), it does not quite move towards an important consequence of taking the interaction process seriously: that it calls for the study of *intentions as they form in interaction* (as opposed to: in individuals). While I agree that direct perception is not only a consequence of participatory sense-making but can in turn feed into interaction processes as well, I believe that there is more scope for Gallagher's Interaction Theory and embodied accounts of social cognition in general to embrace the idea of interactionally emerging intentions.

The idea of an *autonomous* interaction process is admittedly not the most intuitive one of this proposal, not in the least because the first thing it questions is the role of the individual. Am I suggesting that we jettison the individuals in order to understand social cognition? This of course would be nonsensical and it is not what I am proposing. On the contrary, the emphasis on the interaction process gives the individual a place in intersubjectivity that he did not have before: in the face of the interaction's potential to become autonomous, the individual's own autonomy needs to be a crucial theme for exploration. If the interaction process becomes autonomous at some point during an encounter, this has implications for the interactors. For instance, they can lose part of their own autonomy – e.g. their intentions would be overridden, though in this case not by the other, but by the process. This has consequences for understanding the interindividual relationship. For example, it makes it possible to accept that no-one is necessarily to blame for the outcome of a certain encounter. Paradoxically then, focusing on the interaction makes the individual an issue of investigation in its own right, where before its character was assumed unquestioningly. Why and how an individual gets into a social encounter in the first place has never been asked. What are his motivations? How does he open up an interaction, or end one? How does an individual change during an encounter? Why is he sometimes utterly unable to bring his point across, even if he is clear and his interaction partner is willing to understand?

Last but not least, a word on strategy. Gallagher mentions two possibilities: the "Trojan horse" and the root work – i.e. setting down the foundations (Gallagher, 2009, ms. p. 1). He is right to point out that they are not mutually exclusive. In fact, I am very happy that thinkers like Gallagher, Hutto, and others do the extensive and valuable work of criticising – besides their other research, which often includes foundation building too. One of the advantages of the latter is that it generates and informs hypotheses and experiments. These expand the ground on which we stand (for instance, they can give more clues about mechanisms of coordination), and they can give the 'other camp' something to get their teeth into. It is noticeable that a lot of energy goes into criticising cognitivism, but there is not quite as strong a wind coming from their corner trying to blow the enactive edifice down. That is, I think, because the house is not up yet, as Hutto also acknowledges (Hutto, 2009, ms. p. 3). Related to this, in response to Hutto's criticism about the lack of detail surrounding coordination mechanisms (Hutto, 2009, ms. p. 2), I did refer to experimental research on the physics and biology of coordination (De Jaegher, 2009, pp. 1–2, 6). There is also neuroscience of coordination in human interactions (e.g. Tognoli, Lagarde, DeGuzman, & Kelso, 2007) and work that models interactional coordination inspired by infancy research (Froese & Di Paolo, 2008). The house is slowly being built.

As for how we participate in each other's sense-making in exchanges like this one, another implication of taking the interaction seriously is that not just intentions, but social skills themselves are interactional phenomena. Rather than asking where ToM is in the brain, or how direct perception works, the question is *how* people coordinate and create intentions in emergent interaction processes – of which this kind of exchange is a particular sort.

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