

I Only Have Eyes for You: The Metaphysics of Joint Attention

1. *Joint Attention*

But at around nine to twelve months of age a new set of behaviours begins to emerge that are not dyadic... but are triadic in the sense that they involve a coordination of their interactions with objects and people, resulting in a referential triangle of child, adult, and the object or event to which they share attention. Most often the term *joint attention* has been used to characterize this whole complex of social skills and interactions... Most prototypically, it is at this age that infants for the first time begin to flexibly and reliably look where adults are looking (gaze following), to engage with them in relatively extended bouts of social interaction mediated by an object (joint engagement), to use adults as social reference points (social referencing), and to act on objects in the way adults are acting on them (imitative learning). (Tomasello, *The Cultural Origins of Human Cognition* (HUP, 1999, p.62)

Precursor of proper grasp of the mentality of others, 'theory of mind' or 'perspective shifting'
(Hobson, Baron-Cohen, Heal)

A form of communicative engagement unique to humans, and a key diagnostic deficit in autism
(Tomasello, Baron-Cohen, Gómez)

Is it already a form of engagement which requires a relatively sophisticated grasp of the mentality of others?

No, according to the Mindreading hypothesis (Shared Attention Module computes triadic relations subject-object-subject)

Yes, according to Call and Tomasello: Human infants have an understanding of human intentions lacked by other primates.

If we take seriously joint attention as a shared or joint activity, these descriptions leave something important out:

The account of full joint attention by x and y to o that I am now suggesting is this:

(a) x and y are attending to o;

(b) x and y are each aware that their attention in (a) has mutual open-ended perceptual availability; and

(c) x and y are each aware that this whole complex state of awareness (a)-(c) exists. (Peacocke, 'Joint Attention: Its Nature, Reflexivity and Relation to Common Knowledge', p.12 in manuscript)

[mutual open-ended perceptual availability of a state of affairs: if its obtaining, and the operation of perceptual and attentional mechanisms in the two subjects, bring it about that one of them perceives that it obtains, or perceives that the other perceives that it does, or perceives etc., then the state of affairs of his so perceiving is available for the other to perceive. *op. cit.* p.5]

According to one tradition in the developmental literature genuinely shared activity plays a key role in human psychological development. If joint attention is a key element of this, difficult to see how that can be on this model.

2. *Call & Tomasello's 'Third Kind' of Explanation*

To what extent do primates have an understanding of the minds of other subjects?

Whiten and Byrne hypothesis of 'Machiavellian intelligence' – social animals thrive by exploiting social relations, hence need an understanding of others' minds.

Heyes's methodological scepticism – all primate work can be interpreted as behavioural conditioning

Mentalism: attributing intentional states to others as a 'hidden variable' which explains and predicts patterns of behaviour

Behaviourism: agents are sensitive to patterns of behaviour, action strategies are learnt through stimulus-response opportunities

'Third Kind', Call & Tomasello say, involves 'a representational understanding of the behaviour of others, which permits them to do things like remember, foresee, and communicatively manipulate the behaviour and social relationships of others'.

One way of interpreting this critique:

two things distinguish the traditional opposition

task domain over which the agent's competence is defined – does it include mental states plus behaviour (mentalism) or just behaviour (behaviourism)?

Can the competence be understood as an inflexible S-R mechanism (behaviourism), or does it require cognition (mentalism)?

the Third Kind agrees with mentalism about the realisation of the competence, but disagrees about the task domain

Problem with this interpretation: many traditional S-R forms of learning are best explained as exploiting cognition (cf. Gallistel). Does not do justice to the idea that an *understanding* of behaviour and social relations is involved.

Alternative Model:

Mentalism and Behaviourism both assume that what is directly accessible to an agent is the behaviour of others; an appreciation of the mental states of others is purely theoretical. There is no sensitivity to the mental states of another agent without an adequate theory to mirror the causal role of those mental states;

Some of the mental states of others might rather be thought to form part of the environment of an agent in the way that physical properties do, and hence be relatively accessible without a theory of them.

Call's and Tomasello's distinction between behaviour and perception on the one side and intentional states on the other is just such an epistemological contrast – between the observable aspects of mentality and the non-observable.

3. Joint Attention Again

Tomasello suggests that the distinction between primates and human infants is an appreciation of the intentions of others, among their intentional states (i.e. only theoretically graspable mental states), and hence an understanding of choices and communicative intent.

If this is the correct way to view it, joint attention seems to require sophisticated thoughts and not (or not merely) interestingly structured experience.

Two Observations:

Pay attention to the contrast between plural and singular predication.

- (1) Moore wrote *Principia Ethica*
- (2) Russell and Whitehead wrote *Principia Mathematica*
- (3) Mary and Ellen met

In some constructions a verb with plural noun phrase can be read distributively (the sentence is true if the predicate is true of each of the entities picked out by the plural phrase); in other cases it is to be read non-distributively, the predication holds when considering the plurality of entities picked out by the plural phrase.

- (4) John and Mary were jointly attending to the red brick

This is presumably an example of non-distributive plural predication. In general such plural predications are not equivalent to concatenations of singular predications (what is the singular analysis of (3)?).

Pay attention to the form of basic intentions:

- (5) Bill, 'I intend to mow the lawn'
- (6) Bill, 'I intend that I should mow the lawn'

(5) and (6) are not equivalent. We might hypothesise that at root, intention is directed towards acts rather than states of affairs. If an agent is related to his or her actions in a way that no other agent is, then such awareness may ground first person judgements, but not explicitly invoke a conception of who is the agent.

The same property holds for plural activity

- (7) Mary and Ellen each intended to meet

Hypothesis: the minimum needed for shared activity, such as joint attention, is an intention to engage in plural activity. This may not require having a conception of which plurality is involved.

Sophistication may be required not to move from individual action to joint action, but rather to have joint action which excludes some people.

Consider five people in the bar, Mary and Ellen meeting together, Bob, Arnold and Sue meeting together, but no meeting of all five. Each is intending to meet only with some others, and succeeds only where the others in question are likewise intending to meet with them.

This would be consistent with an infant coming to have a grasp of the fact that there are agents with which to engage in joint activity without yet being able to engage in the complex reflexive condition indicated by Peacocke.