

Joint Attention: Communication and Other Minds, edited by Naomi Eilan, Christoph Hoerl, Teresa McCormack and Johannes Roessler. Oxford: Clarendon Press, 2005. Pp. xii + 332. H/b £55.00, P/b £19.99.

You and I are watching a spider crawl across the carpet. We are both aware of the spider, and aware that both are so aware. We are jointly attending to it. This collection of essays addresses a bewildering array of questions that arise regarding the notion of joint attention. How should joint attention be characterised in adults? In particular, how can we articulate the sense in which it is plausible to say that nothing is hidden from either participant in cases of joint attention? What is the relationship between joint attention and the much discussed phenomenon of common, or mutual, knowledge? What account should be given of the development of the capacity for joint attention in children (and in non-human primates)? At what age is it correct to say that children are engaging in episodes of full blown joint attention? Relatedly, what is the relation between joint attention and pointing behaviour, gaze following and mutual affect regulation? Why is it that autistic children appear to exhibit a joint attention deficiency, and what might this tell us about autism, or about joint attention itself? Does the capacity for joint attention presuppose an understanding of the notion of attention, or more generally a subject of experience, and if so what is the relation between that understanding and the types of behaviour associated with joint attention? More generally, how does joint attention relate to our understanding of others? Finally, is the capacity for joint attention pivotal for the development of linguistic communication, or perhaps even a sense of objectivity—of the mind independence of the world?

From birth, infants are visibly interested in faces and react emotionally when others' attention is directed towards them (Reddy, Chapter 5). Soon afterwards, infants' emotional attitudes begin to be influenced by those of the other person (Hobson, Chapter 9). At around 6-8 months, infants engage in 'social referencing', alternating their gaze between an external object and an

attentive other (Reddy). Infants appear to manifest a understanding of grasping behaviour as *object directed* from around 6 months, whereas they only seem to understand looking and pointing as object directed actions from around 9-12 months (Woodward, Chapter 6). Similarly, whilst finger extension is apparent from the early months, proto-declarative pointing—pointing with the aim of showing—only begins to emerge between 9 and 12 months (Franco, Chapter 7). There is also evidence that, at some point in the second year—perhaps as early as 13 months—infants begin to exploit an understanding of others’ ‘communicative intentions’ in word learning (Sabbagh and Baldwin, Chapter 8).

Autistic children display difficulties with gaze following and orienting to a social stimulus, and acquire the capacity for joint attention much later than non-autistic children (Leekam, Chapter 10). They also lack an emotional engagement with other people (Hobson). Moving to the world of apes, there is evidence to suggest that whilst chimpanzees do understand seeing, they do so in a way which may fall short of the sophisticated understanding possessed by humans (Call and Tomassello, Chapter 3). Although there is reason to think that non-human primates understand, in a practical way, how to secure the attention of another, they do not engage in proto-declarative pointing (Gomez, Chapter 4).

There is, then, a wealth of empirical material presented in this volume and the essays here all themselves draw upon an already vast literature. But, how we interpret this empirical material will depend in part upon the answers we give to a number of philosophical questions. Such philosophical questions are addressed in the essays of both philosophers and psychologists. For example, Roessler (Chapter 11), Reddy and Hobson all address the issue of the extent to which ‘inner’ states such as attention can be manifest to perception. For crediting infants below a certain age with the capacity to reason from the observable behaviour of others to attributions of states of attention may seem implausible. Conceiving of a person’s attending to an object as something that can be *seen* by another, on the other hand, changes matters significantly. And, on the assumption

that joint attention requires some kind of personal level co-ordination of attention, this issue quite clearly bears upon the age at which we should place the emergence of full blown joint attention.

Another philosophical issue that bears upon our interpretation of the empirical material is the question of our mature understanding of psychological concepts and their attribution. As Heal (Chapter 2) points out, our conception of what it is that adults do when thinking of others' mental states is bound to influence our understanding of how the child's conception of other minds develops. But this dependence goes in both directions. For one of the issues being pursued throughout is the point at which infants gain an understanding of others as subjects (of attention). To answer this we need to know how to determine whether or not an infant understands such a thing. Obviously this involves an attribution on our part of a cognitive state to another (the infant), so it is vital to know what it is that *we* are doing here. That is, we need to know what it is to understand another as a subject, and by what means, and on what grounds, we attribute such an understanding to others.

What is the importance of the fact that joint attention is usually seen as a *triadic* relation, between two subjects and 'third element'? As Eilan (Chapter 1) makes evident, the idea that the child's understanding of others as subjects of experience develops alongside their capacity to jointly attend to objects in their social environment speaks to the claim, put forward by Davidson, that the understanding of others and of objectivity must develop simultaneously by means of a triangulation between (at least) two subjects and objects in their world. Some of the philosophical interest in the empirical literature on joint attention might well be seen as making good a version of this Davidsonian approach, divested of some of his strict requirements on the attribution of thought. This chapter, whilst intended as an introduction, perhaps works better as a genuine contribution to the joint attention literature, as its central motif – the relation to Davidson's triangulation argument – is not picked up in any of the other papers.

Another reason that philosophers should be interested in joint attention is that there is here a

phenomenon that manifests, at the level of experience, some of the features displayed by common knowledge. Both Campbell (Chapter 13) and Peacocke (Chapter 14) argue, albeit in different ways, that joint attention serves to ground common knowledge. Rather than think that we can import our analysis of common knowledge into the sphere of experience, we should recognise that common knowledge is itself only made possible through the kind of interpersonal interactions discussed in this volume. It appears to be an assumption of these two chapters, and arguably implicit throughout the collection, that the jointness of joint attention is to be explained by reference only to the individual psychological states of each of the participants. That is, it is never really taken seriously that the jointness of joint attention might be a matter of two (or more) individuals jointly being in a state of attention. On such a view, rather than follow Campbell in saying that, “x has the experience of jointly attending, with y, to z”, we would say that x and y jointly have the experience of attending to z. It is unclear that the latter entails the former. This metaphysical issue, whilst not a direct focus of the collection, does structure the epistemological issues therein. For, the question of how I can know to what you are attending, looks different if it is supposed that states of attention can have a plurality of subjects.

Hoerl and McCormack (Chapter 12), apply some of the lessons from the study of joint attention to another important aspect of mind, that of memory. In particular, they argue that the sharing of episodic memories should be understood as jointly attending to the past. Specifically, they claim that this kind of attention to the past requires a grasp of the causal structure of time and that this grasp can only be gained via a specific form of rational engagement, the creation of narratives, with other people.

This collection is remarkably rich in content and should be read by both philosophers and psychologists interested in the development and nature of intersubjectivity and related aspects of mind. The interaction between philosophical and psychological discussions is of a high standard throughout, and it is a welcome addition to the ongoing conversation between the two disciplines.

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Perhaps the most important effect of this volume, when placed alongside the other titles in this series (*Spatial Representation, Agency and Self-Awareness* and *Time and Memory*), will consist in the recognition that pursuing a study of the mind in a *purely* empirical or a *purely* conceptual manner, unaware of the issues on the other side of the divide, is not a serious option.

JOEL SMITH

Department of Philosophy  
University of Essex  
Wivenhoe Park  
Colchester  
Essex  
CO4 3SQ