

SYMPOSIUM:

The cognitive psychology of joint action

Philosophical questions concerning the roles of intention, motivation, reason, commitments and emotion in joint action are closely related to questions about which psychological mechanisms make effective joint action possible. Recent behavioural and neuroscientific studies have investigated the possibility that agents can integrate a co-actor into their own action planning. These studies also indicate that individuals plan joint actions from a group perspective rather than an individual perspective. Whereas philosophers investigating joint action have tended to focus on shared intentions and interlocking commitments, these studies reveal the need for interdependent motor processes and representations. There is thus a gap between the dominant philosophical approach and the experimental investigation of joint action phenomena. As a step towards bridging the gap, this symposium aims to introduce psychological research on how representations of tasks, actions and the consequences of actions facilitate joint action; and to identify associated conceptual challenges.

1. Commitments, Predictability and joint action

Elisabeth Pacherie

Institut Jean Nicod, Paris

There are important divergences among philosophers on the nature and role of the commitments present in joint action. Some hold that joint commitments, together with the mutual obligations and entitlements they entail, are constitutive of shared intentions and engage a *sui generis* form of social normativity. Others maintain that while mutual obligations and entitlements are very common in joint action, they are not essential to joint action and their normativity is reducible to familiar kinds of rational or moral normativity. In this talk, I shall approach these issues by considering the function of commitments in joint action. Success in achieving a joint goal rests on the coordination of co-agents' intentions and actions and successful coordination itself depends on the predictability of one's co-agents decisions, intentions, and actions. I shall argue that the chief role of commitments in joint action is to make oneself more predictable to one's partners. One corollary of this would be that commitments are only necessary to the extent that predictability cannot be achieved (in a cheaper way) by other means. Another corollary is that commitments in joint action have an essentially social dimension since their function is to make oneself predictable to *others*.

2. Joint Action, Hands-On

Günther Knoblich

Central European University, Budapest

What are the cognitive representations and sensorimotor mechanisms that allow people to perform actions together? How much explicit planning and thinking about one's partner is required when exchanging objects or carrying furniture together? How can groups learn to perform joint actions from observing other groups? In my talk I will provide an overview of psychological research that has addressed these questions. This research assumes that performing and observing joint actions does not always require

high-level social planning, reasoning, and monitoring as philosophical approaches to shared intentionality may be taken to suggest. Rather, from this perspective the main challenge for Cognitive Science accounts of joint action is to understand how overlaps in individuals' perceptions, action plans, and motor repertoires enable them to effectively coordinate their actions to produce joint outcomes. Current obstacles in constructing robot helpers underline the necessity of better understanding the interplay of perceptual, cognitive, and motor mechanisms that make tightly coordinated joint action possible.

3. Motor Representation and Shared Intention

Stephen Butterfill

University of Warwick

On the assumption that motor representation plays a role in explaining how effective joint action is possible, do we also need motor representation to explain what joint action is? Philosophers tend to assume that motor representation is only an enabling condition for joint action and of no direct interest to narrowly philosophical theories of joint action and shared intention. In this talk I shall argue that social motor representation and shared intention have distinctive roles in explaining the purposiveness of joint action. This gives rise to a challenge. On the one hand, effective joint action—imagine two people erecting a tent in a gale together—sometimes requires both shared intentions and social motor representations plus a certain kind of harmony between the two. On the other hand, recognizing their distinctive roles precludes the existence of direct inferential links between shared intentions and social motor representations. The challenge is to explain how these two kinds of representation could sometimes harmoniously contribute to effective joint action despite the lack of inferential integration.