# Mindreading & Joint Action: Philosophical Tools

Lecture 7: What Is Shared Agency?
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How do activities involving shared agency differ from activities involving parallel agency only?

A *joint* or *collective action* is an exercise of shared agency.

## 1. Shared agency requires shared intention?

'I take a collective action to involve a collective intention.'8

'The sine qua non of collaborative action is a joint goal [shared intention] and a joint commitment' 14

'the key property of joint action lies in its internal component ... in the participants' having a "collective" or "shared" intention.' 1

'Shared intentionality is the foundation upon which joint action is built.'6

'it is precisely the meshing and sharing of psychological states ... that holds the key to understanding how humans have achieved their sophisticated and numerous forms of joint activity' 5

## 2. What is shared intention?

The functional role of shared intentions is to: (i) coordinate activities; (ii) coordinate planning; and (iii) provide a framework to structure bargaining.<sup>3</sup>

For you and I to have a shared intention that we J it is sufficient that: (1)(a) I intend that we J and

(b) you intend that we J; (2) I intend that we J in accordance with and because of la, lb, and meshing subplans of la and lb; you intend that we J in accordance with and because of la, lb, and meshing subplans of la and lb; (3) 1 and 2 are common knowledge between us.'<sup>3</sup>

'each agent does not just intend that the group perform the [...] joint action. Rather, each agent intends as well that the group perform this joint action in accordance with subplans (of the intentions in favor of the joint action) that mesh'<sup>2</sup>

'shared intentional agency consists, at bottom, in interconnected planning agency of the participants' 4

# 3. A challenge

'the contribution of lower-level processes to social interaction has hardly been considered. This has led philosophers to postulate complex intentional structures that often seem to be beyond human cognitive ability in real-time social interactions.' <sup>10</sup>

# 4. A conjecture

The prior existence of capacities for shared agency partially explains how sophisticated forms of mindreading emerge in evolution or development (or both).

'[F]unctions traditionally considered hallmarks of individual cognition originated through the need to interact with others ... perception, action, and cognition are grounded in social interaction.'9

'the unique aspects of human cognition ... were

driven by, or even constituted by, social cooperation.'12

'human cognitive abilities ... [are] built upon social interaction'

### 5. Shared Agency without Shared Intention

#### 5.1. First attempt

A joint action is an action with two or more agents? 11

Objection 'our primitive actions, the ones we do not by doing something else, ... these are all the actions there are.'

#### 5.2. Second attempt

A joint action is an action event grounded by two or more agents' actions.

Two or more events *overlap* just if any (perhaps improper) part of one of these events is a (perhaps improper) part of any of the other events.

singular grounding Event D grounds E, if: D and E occur; D is a (perhaps improper) part of E; and D causes every event that is a proper part of E but does not overlap D.

To be the *agent of an event* is to be the agent of the action which grounds it. 13

**plural grounding** Events  $D_1$ , ...  $D_n$  ground E, if:  $D_1$ , ...  $D_n$  and E occur;  $D_1$ , ...  $D_n$  are each (perhaps improper) parts of E; and every event that is a proper part of E but does not overlap  $D_1$ , ...  $D_n$  is caused by some or all of  $D_1$ , ...  $D_n$ .

For an individual to be among the agents of an event is for there to be actions  $a_1, ... a_n$  which ground this event where the individual is an agent of some (one or more) of these actions.

### 5.3. Further attempts

A joint action is an event grounded by two or more agents' actions where these actions have a distributive collective shared goal.

A *goal* is an outcome to which actions are, or might be, directed. A *goal-state* is an intention or other state of an agent linking an action to a goal to which it is directed.

Distributive goal. The *distributive goal* of two or more actions is G: (a) each action is individually directed to G; and (b) it is possible that: all actions succeed relative to this outcome.

Collective goal. The *collective goal* of two or more actions is G: (a) G is a distributive goal of the outcomes; (b) the actions are coordinated; and (c) coordination of this type would normally facilitate occurrences of outcomes of G's type

Shared goal. The shared goal of two or more

agents' actions is G: (a) G is a collective goal of their actions; (b) each agent can identify each of the other agents in a way that doesn't depend on knowledge of the goal or actions directed to it; (c) each agent most wants and expects each of the other agents to perform actions directed to G; and (d) each agent most wants and expects G to occur as a common effect of all their goal-directed actions, or to be partly constituted by all of their goal-directed actions.

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