

# Joint Action & the Emergence of Mindreading

## Lecture 3: Which Joint Actions Ground Social Cognition?

s.butterfill@warwick.ac.uk

### 1. Joint action requires shared intention?

'I take a collective action to involve a collective intention.'<sup>7</sup>

'The sine qua non of collaborative action is a joint goal [shared intention] and a joint commitment'<sup>12</sup>

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

'Shared intentionality is the foundation upon which joint action is built.'<sup>5</sup>

'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'<sup>4</sup>

### 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>

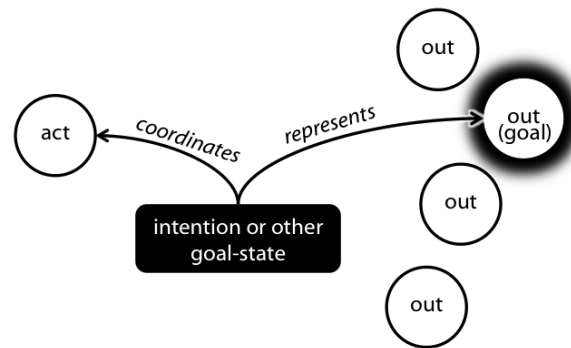


Figure: The standard story for individual action.

### 3. What is joint action?

#### 3.1. A joint action is an action with two or more agents?<sup>9</sup>

*Objection* 'our primitive actions, the ones we do not by doing something else, ... these are all the actions there are.'<sup>6</sup>

#### 3.2. Second attempt

A joint action is an action event with two or more agents<sup>9</sup>

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.<sup>11</sup>

**plural grounding** Events *D*<sub>1</sub>, ... *D*<sub>*n*</sub> ground *E*, if: *D*<sub>1</sub>, ... *D*<sub>*n*</sub> and *E* occur; *D*<sub>1</sub>, ... *D*<sub>*n*</sub> are each (perhaps improper) parts of *E*; and every event that is a proper part of *E* but does not overlap *D*<sub>1</sub>, ... *D*<sub>*n*</sub> is caused by some or all of *D*<sub>1</sub>, ... *D*<sub>*n*</sub>.

For an individual to be *among the agents of an event* is for there to be actions *a*<sub>1</sub>, ... *a*<sub>*n*</sub> which ground this event where the individual is an agent of some (one or more) of these actions.

### 3.3. Goal-directed joint action (third attempt)

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

A *goal-directed joint action* is a joint action which, taken as a whole, is directed to a goal.

**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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