Interacting Mindreaders

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Could interacting mindreaders be in a position to know things which they would be unable to know if they were manifestly passive observers?

Terminology

Mindreading: 'In saying that an individual has a theory of mind, we mean that the individual imputes mental states to himself and to others ... the system can be used to make predictions, specifically about ... behavior.'[7]

Sophisticated forms of mindreading involve imputing propositional attitudes such as belief, desire and intention in the course of constructing or evaluating reason-giving, causal explanations of action.

The Problem of Opaque Means

Ignorance about to which ends actions are means can be an obstacle to goal ascription.

Distributive Goals

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.

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.

Ordinary 3rd person interpretation

Csibra & Gergely's principle of rational action: 'an action can be explained by a goal state if, and only if, it is seen as the most justifiable action towards that goal state that is available within the constraints of reality.'[3,2]

(Contrast a principle of efficiency: 'goal attribution requires that agents expend the least possible amount of energy within their motor constraints to achieve a certain end.'[8])

These facts:

1. action a is directed to some goal;
2. actions of a's type are normally capable of being means of realising outcomes of G's type in situations with the salient (to any concerned) features of this situation;
3. no alternative type of action is both typically available to agents of this type and also such that actions of this type would be normally be significantly better* means of realising outcome G in situations with the salient features of this situation;
4. the occurrence of outcome G is typically desirable for agents of this type;
5. there is no other outcome, G', the occurrence of which would be at least comparably desirable for agents of this type and where (2) and (3) both hold of G' and a

may jointly constitute defeasible evidence for the conclusion that:

6. G is a goal to which action a is directed.

*An action of type a' is a better means of realising outcome G in a given situation than an action of type a if, for instance, actions of type a' normally involve less effort than actions of type a in situations with the salient features of this situation and everything else is equal; or if, for example, actions of type a' are normally more likely to realise outcome G than actions of type a in situations with the salient features of this situation and everything else is equal.

Your-goal-is-my-goal

1. You are willing to engage in some joint action or other with me.
2. I am not about to change the single goal to which my actions will be directed.

Therefore:

3. A goal of your actions will be my goal, the goal I now envisage that my actions will be directed to.

Application

'to understand pointing, the subject needs to understand more than the individual goal-directed behaviour. She needs to understand that ... the other attempts to communicate to her ... and ... the communicative intention behind the gesture'[6]

A failed reach (left) and a helpful point (right).[4]

Leekam et al.: 'the adult's social cues conveyed her communicative intent, which in turn encouraged the child to 'see through the sign'.'[5]

Csibra: Early in human development, teleological and referential action interpretation 'rely on different kinds of action understanding' and involve two distinct 'action interpretation systems' which come together later in development.[1]

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