

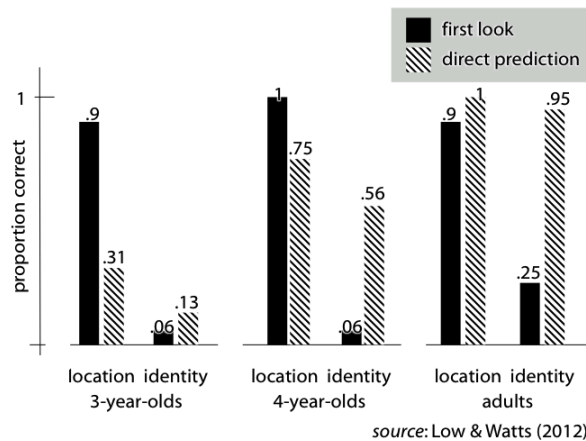
Lecture 06: Social Cognition

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‘we should be focused not on the yes–no question (do chimpanzees have a theory of mind?), but rather on a whole panoply of more nuanced questions concerning precisely what chimpanzees do and do not know about the psychological functioning of others’ (Hare et al. 2001, p. 149)

1. Signature Limits (Part I)

Automatic belief-tracking in adults and belief-tracking in infants are both subject to signature limits associated with minimal theory of mind (Wang et al. 2015; Low & Watts 2013; Low et al. 2014; Mozuraitis et al. 2015; Edwards & Low 2017; Fiske et al. 2017; Oktay-Gür et al. 2018; contrast Scott et al. 2015).



2. The Teleological Stance

‘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’ (Csibra & Gergely 1998, p. 255)

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.

3. Automatic and Non-automatic Mindreading

Are human adults’ abilities to track others’ beliefs automatic?

A process is *automatic* to the degree that whether it occurs is independent of its relevance to the particulars of the subject’s task, motives and aims.

Automatic mindreading is mindreading that is a consequence of automatic processes only.

Southgate et al. (2007) created an anticipatory looking false belief task, originally for use with

two-year-olds, which has been adapted to provide evidence for automatic false belief tracking.

There is evidence that some mindreading in human adults is entirely a consequence of relatively automatic processes (Kovács et al. 2010; Schneider et al. 2012; van der Wel et al. 2014) and that not all mindreading in human adults is (Apperly et al. 2008, 2010; van der Wel et al. 2014).

Incidentally, belief tracking can also occur without awareness: ‘Participants never reported belief tracking when questioned in an open format after the experiment (“What do you think this experiment was about?”). Furthermore, this verbal debriefing about the experiment’s purpose never triggered participants to indicate that they followed the actor’s belief state’ (Schneider et al. 2012, p. 2)

4. Radical Interpretation Reprise

Marr (1982, p. 22ff) distinguishes:

- computational description—What is the thing for and how does it achieve this?
- representations and algorithms—How are the inputs and outputs represented, and how is the transformation accomplished?
- hardware implementation—How are the representations and algorithms physically realised?

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