

# Mindreading & Joint Action: Philosophical Tools

## Lecture 3: Tracking, Measuring and Representing Beliefs

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### 1. Question

What could someone represent that would enable her to track, at least within limits, others' perceptions, knowledge states and beliefs including false beliefs?

### 2. Tracking mental states

An *ability to track* certain kinds of mental state is an ability that exists in part because exercising it brings benefits obtaining which depends on exploiting or influencing facts about mental states of those kinds.

To *track* a particular belief (or other mental state) is to exercise an ability to track those kind of mental states in such a way that, normally, one's thoughts or actions (or both) would carry information that a given subject has that belief (or other mental state).

\*\*\*THINK: why not just define tracking in terms

of carrying information (whether or not it brings any benefit)? This would allow you to say that a machine can be built to track beliefs without the machine exploiting or influencing others' beliefs.

### 3. Theory of mind cognition is hard

Conceptually demanding:

- Acquisition takes several years<sup>10,9</sup>
- Tied to the development of executive function<sup>6,7</sup> and language<sup>2</sup>
- Development facilitated by explicit training<sup>8</sup> and siblings<sup>3,4</sup>

Cognitively demanding:

- Requires attention and working memory in fully competent adults<sup>1,5</sup>

### References

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