

How to construct a Minimal Theory of Mind

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A black and white photograph of two young children, a boy and a girl, standing close together against a dark background. The boy, on the left, has light-colored hair and is wearing a patterned long-sleeved shirt under dark overalls. The girl, on the right, also has light-colored hair and is wearing a dark top with small patterns. They are both smiling and looking towards the camera.

challenge

Explain the emergence, in evolution or development, of full-blown theory of mind cognition.

A black and white photograph of two young children, a boy and a girl, standing close together and smiling. The boy is in the foreground, wearing overalls, and the girl is behind him, wearing a patterned dress. They appear to be in a joyful, playful mood.

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Explain the emergence, in evolution or development, of full-blown theory of mind cognition.

conjecture

We need to understand how theory of mind cognition could come in degrees.

“chimpanzees understand ... intentions ... perception and knowledge ... Moreover, they understand how these psychological states work together to produce intentional action”

(Call & Tomasello 2008:191)



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A black and white photograph of two young children, a boy and a girl, standing close together and smiling. The boy is in the foreground, wearing overalls, and the girl is behind him, wearing a patterned dress. They appear to be in a bright, possibly outdoor setting.

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“our [typical adult humans’] fundamental conception of what it is to know that P is itself an explanatory conception [...] we think of S’s knowledge that P as something that can properly be explained by reference to what S has perceived or remembered or proved or ...”

(Cassam 2007:356)



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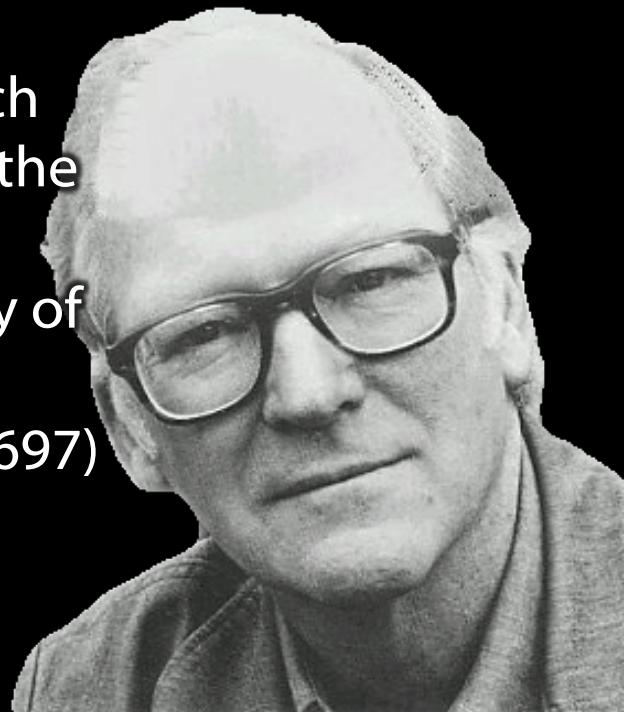
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obstacle

Grasp of everyday psychological concepts like belief, desire, knowledge and intention is all-or-nothing.

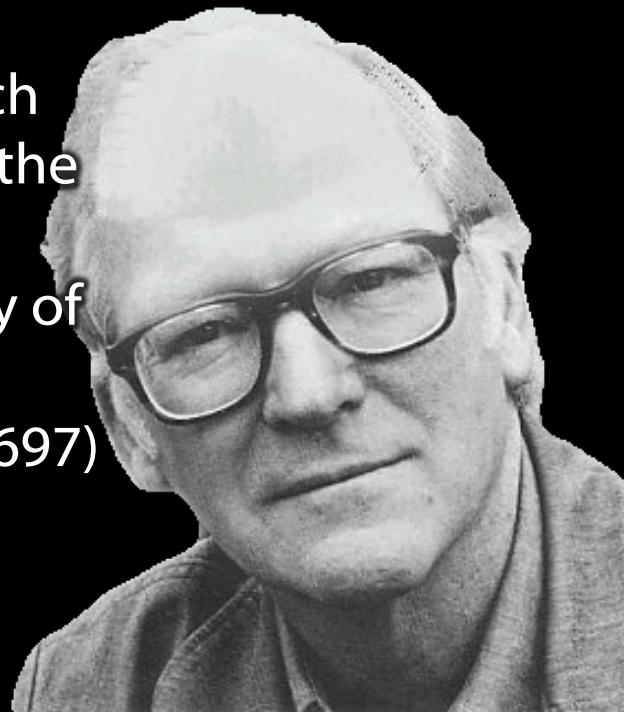
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puzzle

Theory of mind *abilities* are widespread



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18-month-olds point to inform, and predict actions based on false beliefs

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- working memory

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Propositional attitudes ...

cause actions

resemble “intervening variables” linking environment to behaviour

have contents which may be true or false

have contents which may refer to non-existent entities

are involved in uncodifiably complex causal interactions

have contents which are individuated by senses, not only by referents

are associated with normative requirements

are individuated in terms of their interlocking roles in causal and normative explanations of thought and action

...

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What could infants, chimps and scrub-jays represent that would enable them, within limits, to track others' perceptions, knowledge, beliefs and other propositional attitudes?

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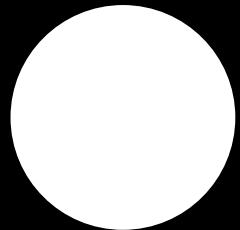
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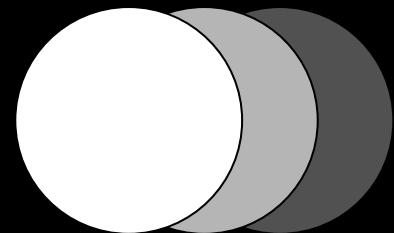
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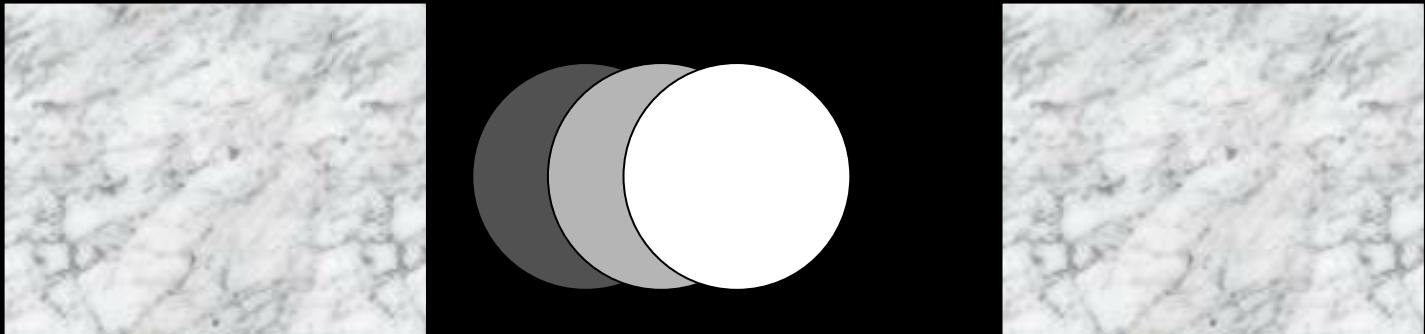
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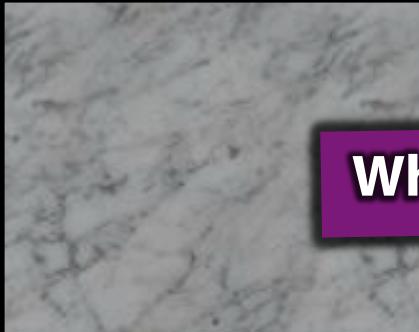
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Where is the ball?



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Where is the ball?



puzzles
What could be
would enable
knowledge

RT / looking time



Other's belief
True

Other's belief
False

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Explain the empirical evidence for evolution or development of the capacity of mind cognition.

puzzle

What could infants, chimps and other primates know about the world? What would enable them, within limits, to learn about the world? How do they learn about the world? What are the limitations, if any, on what they can learn about the world?



