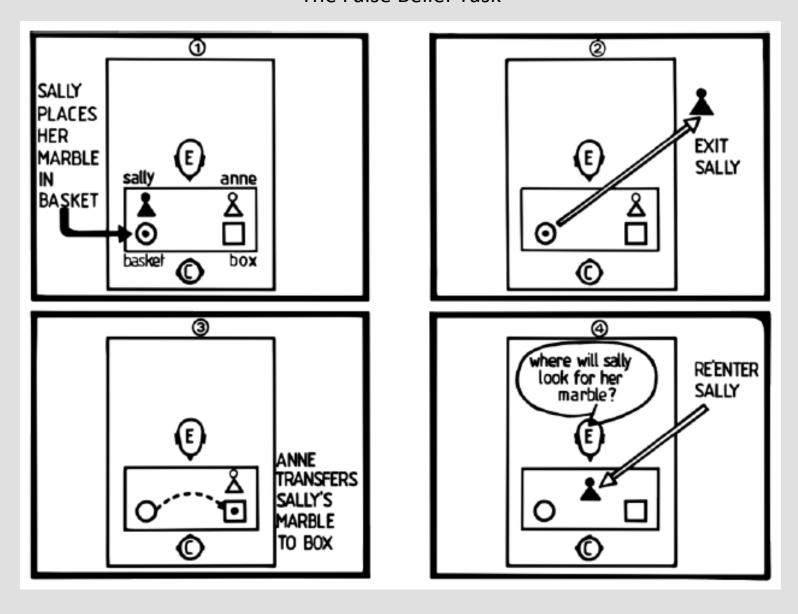
The Strategist 6

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The False Belief Task

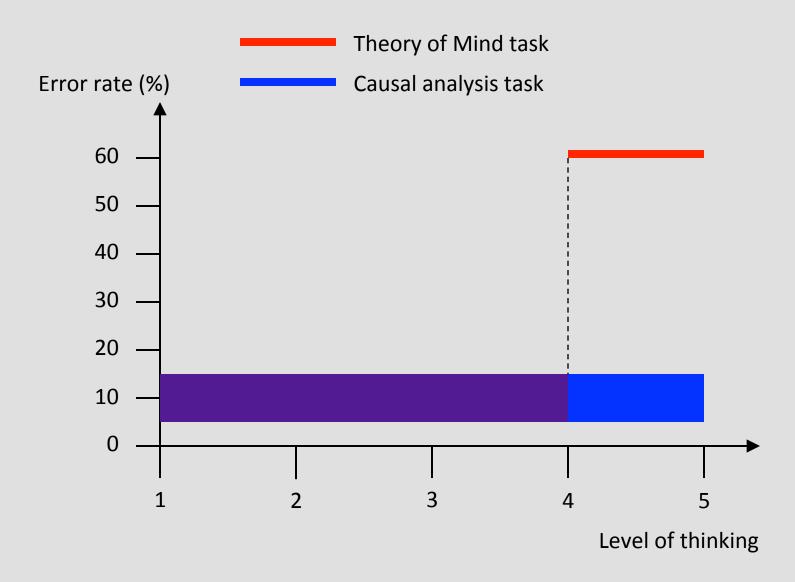


ToM story:

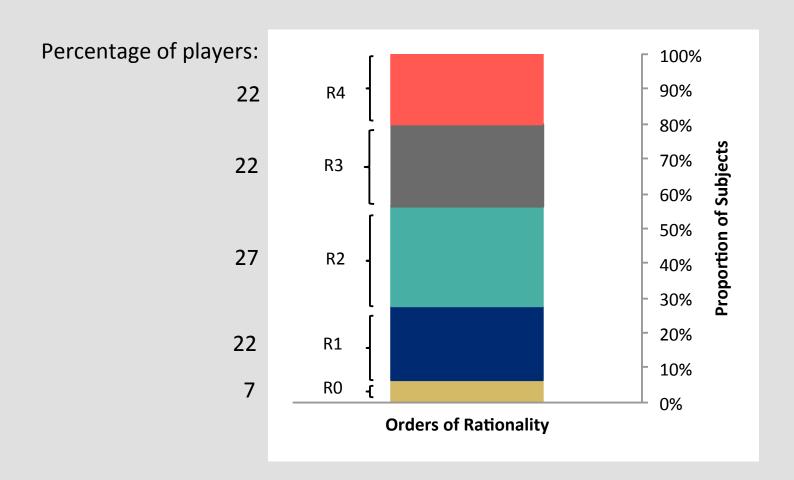
A burglar who has just robbed a shop is making his getaway. As he is running home, a policeman on his beat sees him drop his glove. He doesn't know the man is a burglar, he just wants to tell him he dropped his glove. But when the policeman shouts out to the burglar, "Hey, you! Stop!", the burglar turns round, see the policeman and gives himself up. He puts up his hands and admits that he did the break-in at the local shop. **Question:** Why did the burglar do that?

Non-ToM story:

Two enemy powers have been at war for a very long time. Each army has won several battles, but now the outcome could go either way. The forces are equally matched. However, the Blue army is stronger than the Yellow army in foot soldiers and artillery. But the Yellow army is stronger than the Blue army in air power. On the day of the final battle, which will decide the outcome of the war, there is heavy fog over the mountains where the fighting is about to occur. Lowlying clouds hang above the soldiers. By the end of the day the Blue army has won. **Question:** Why did the Blue army win?



From: Dunbar, R., "Theory of Mind and the Evolution of Language," in Hurford, J., Studdert-Kennedy, M., and C. Knight (eds.), *Approaches to the Evolution of Language: Social and Cognitive Bases*, Cambridge University Press, 1998, 92-110; Bentall, R., Dunbar, R., and P. Kinderman, "Theory-of-Mind Deficits and Causal Attributions," *British Journal of Psychology*, 89, 1998, 191

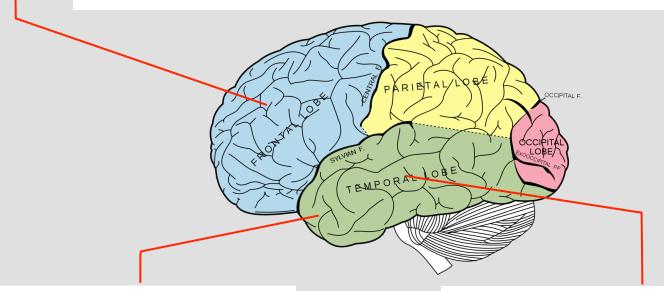




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Medial prefrontal cortex →

Predict the subsequent behavior of other players, by asking how one might oneself subsequently act in their positions (anchoring) and then modifying these predictions (adjusting) to take into account how one thinks their mental states (intentions, desires, knowledge, and beliefs) differ from one's own



Temporal poles →

Collect historical information about the particular context being studied

Posterior superior temporal sulcus →

Collect data, based on various inputs, about the current behavior of the other players

The Social Brain Hypothesis

Primates live in social groups

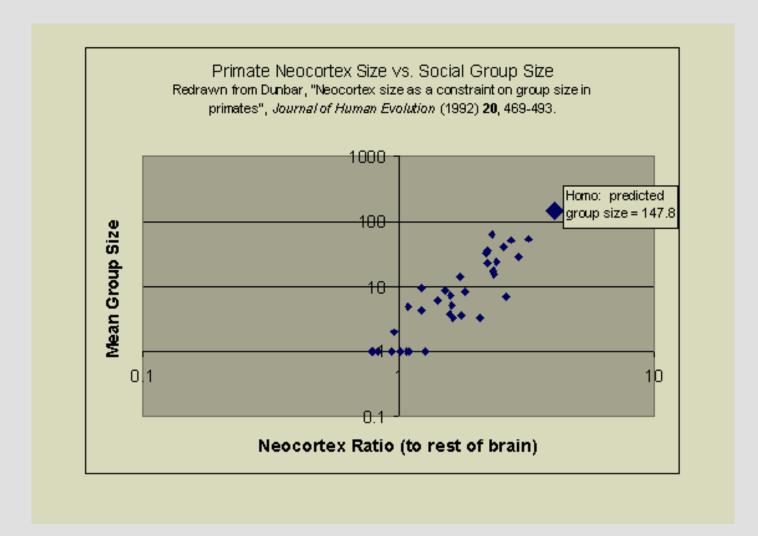
Grooming serves to bond relationships

Early hominid group size increases

Grooming becomes impractical

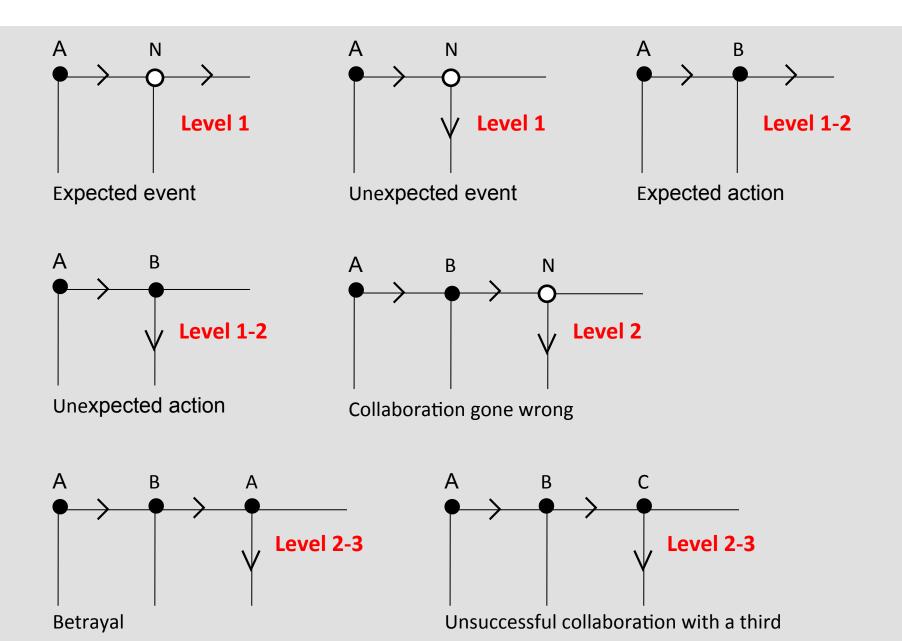
Language develops to facilitate bonding

ToM develops to make language effective



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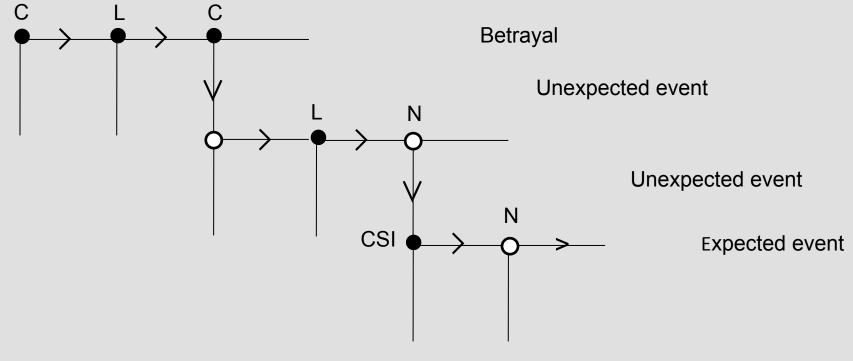
CRIME SCENE INVESTIGATED



Löwe, B., E. Pacuit, and S. Sanchit, "Identifying the Structure of a Narrative Via an Agent-Based Logic of Preferences and Beliefs: Formalizations of Episodes from CSI: Crime Scene Investigation™," in Duvigneau, M., and D. Moldt (eds.), Proceedings of the Fifth International Workshop on Modelling of Objects, Components and Agents – MOCA'09, Hamburg, 2009

CSI, Season 1, Episode 3:

Chip Rundle and Laura Garris plan to fake a kidnapping and get a ransom from Laura's husband. However, after the staged kidnapping, Chip turns on Laura and buries her in a crate in the Nevada desert. Based on some dirt on the bedroom carpet, the CSI unit manages to find Laura before she dies. In the meantime, Laura's husband has paid the ransom. When he collects the ransom, Chip is arrested. Confronted with the facts, Laura does not tell the police that Chip was the kidnapper, but her voice is matched to the voice of the ransom phone call. The CSI unit decides to investigate further and finds that the evidence is not consistent with a real kidnapping. A blood test confirms that Laura was never drugged and leads to Laura's arrest.



"J.C. Snead once said, "When you go head to head against Nicklaus, he knows he's going to beat you, and he knows you know he's going to beat you."

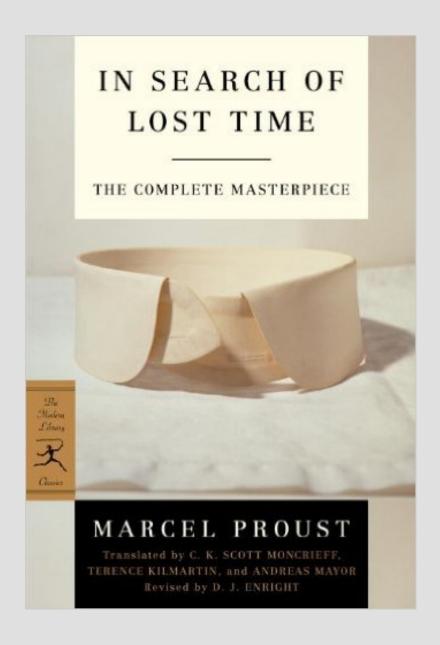
That may be a little over the top, but there is no question that, coming down the stretch in my best years, I knew exactly how intimidating I was to most of the other players. And it gave me a huge competitive edge. I knew that if I kept the pressure on and didn't do anything stupid, I would often win.

This might sound like arrogance, but it really wasn't. I recognized that many of my opponents had physical skills equal or even superior to mine, but I also knew that few of them had the mental or emotional capability to use them as effectively as I generally could mine."





"Whether it [the Strategic Defense Initiative, aka Star Wars] works, celestially speaking, is nowhere near as important as what it does cerebrally"



The only true voyage of discovery, the only fountain of Eternal Youth, would be not to visit strange lands but to possess other eyes, to behold the universe through the eyes of another, of a hundred others, to behold the hundred universes that each of them beholds, that each of them is

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