

## Faculti Summary

<https://faculti.net/why-do-children-pass-in-the-centipede-game-cognitive-limitations-v-risk-calculations/>

The speaker discusses a line of research aimed at understanding decision-making in strategic contexts, particularly focusing on how adults often make irrational decisions and how strategic skills develop over time. Two key components of strategic decision-making are identified: logical reasoning, supported by cognitive abilities and the executive functions of the prefrontal cortex, and theory of mind, which is the ability to understand others' intentions and perspectives.

The speaker illustrates these concepts using decision-making games, such as a sequential game where players must decide whether to take immediate rewards or possibly larger future rewards, with the risk that their opponent may take the money first. The exploration of backward induction—a reasoning process where future outcomes influence current decisions—reveals how players tend to make counterintuitive choices that lead to suboptimal outcomes.

Additionally, experiments conducted with children aged 8 to 16 show how decision-making skills evolve. Younger children typically struggle with backward induction and often fail to anticipate others' actions, leading them to pursue lower payoffs. As they grow and develop their theory of mind, they learn to navigate these strategic decisions more effectively.

The research highlights the role of environmental factors and socioeconomic status in the development of these cognitive and social skills, suggesting that different backgrounds might influence how children perceive and engage with others in decision-making contexts. The findings emphasize the complex interaction of cognitive and emotional elements in strategic behavior across different age groups and populations.