Adolescents more economically rational than young adults, researchers find

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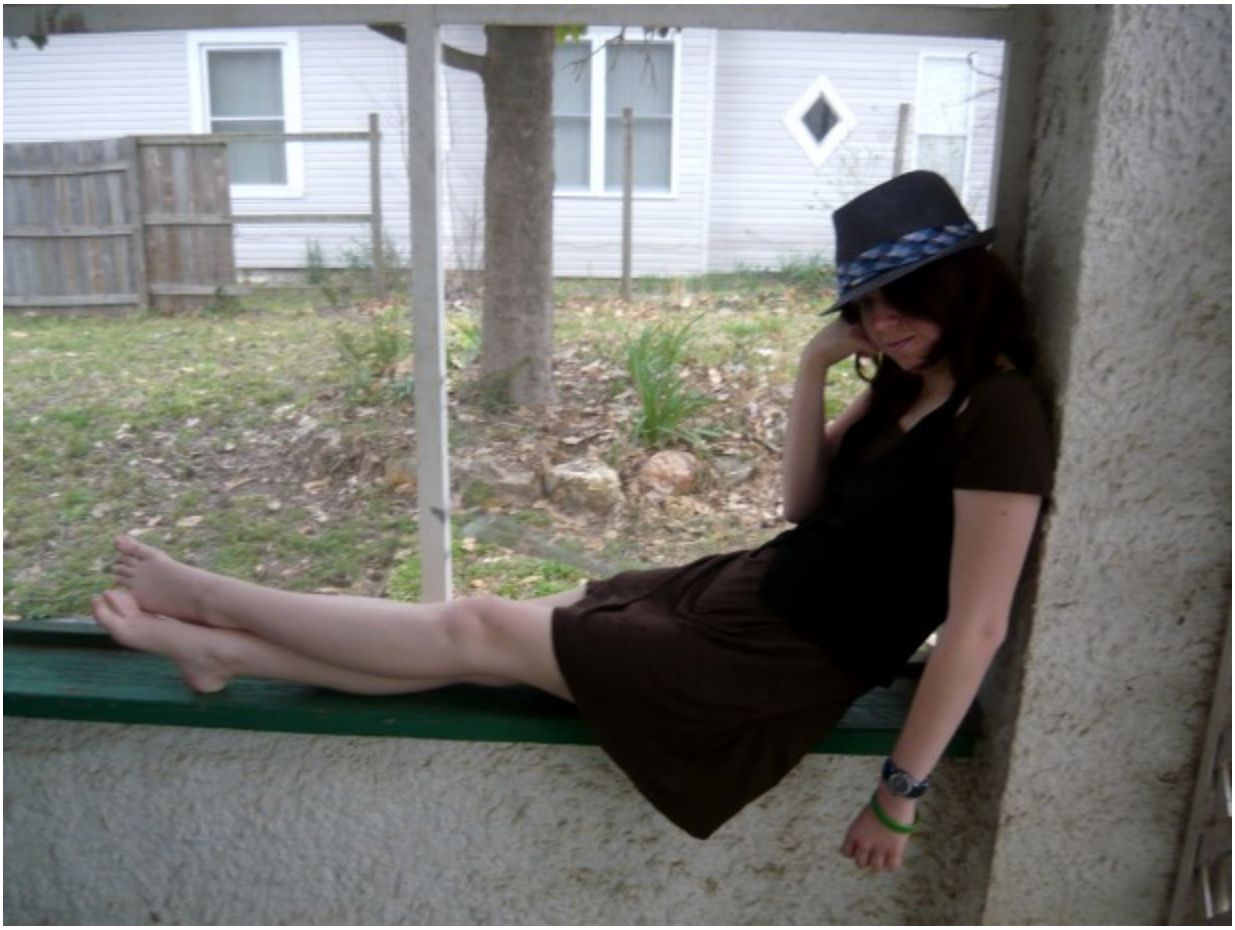

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Teenagers are irrational and make bad decisions. Or do they? A new

Duke study finds that adolescents ages 10 to 16 can be more analytical in their economic choices than many slightly older young adults.

Published online in the October-December issue of *Cognitive Development*, the study suggests not only that society should give adolescents more credit for rationality but also that parents should help children hone their cost-benefit analysis skills in making real-life decisions.

"The new results point to the idea that we should not think of adolescents as being irrational," said corresponding author Scott Huettel, a professor of psychology and neuroscience at Duke. "What's different about them is they don't use simple rules as effectively."

Such simple rules are the mental shortcuts people take in decision-making—often to their benefit—as they age and gain more experience. Most adults apply the "don't drink and drive" rule, for example, to avoid getting in a car with someone who's been drinking. In contrast, teens may more carefully weigh this decision.

"Adolescents are going to be more likely to use cost-benefit analysis than the (simple rules) that adults use. That can get these kids into a lot of trouble," Huettel said.

In the new study, participants were presented with three scenarios (A, B, and C) and asked to pick the best one. Each scenario contained a set of outcomes that could lead to winning or losing different sums of money.

For example if the subjects picked scenario A, they had a one-third chance of winning, say $6, one-third chance of winning $4, and a one-third chance of losing $4. Scenarios B and C each came with their own chances to win or lose three different dollar amounts.

Young adults—who were 22 years old, on average—used simple rules. As they completed more trials, they counted the number of wins and losses in each scenario and picked the one with the most wins, ignoring the dollar amount of each potential gain or loss.

Adolescents, on the other hand, accounted for the magnitude of the potential win or loss and chose scenarios to minimize loss.

"I was surprised by how consistent the effects were," Huettel said. "Pretty much everywhere we looked, adolescents were the ones who looked more economically rational."

Tracking the participants' eyes as they completed the task gave clues about how they were processing the information. Adolescents consistently viewed almost all the possible outcomes of their choices throughout the experiment.

In contrast, young adults looked at almost everything initially, but as the experiment progressed they started to ignore information that wasn't useful to them. They also spent less time than adolescents viewing each outcome, the study found.

Other research has shown that adolescents aren't necessarily more risk-seeking but that they are more sensitive to good outcomes compared with adults. Teens also place more value in social interactions and approval.

Huettel's group is studying the role of peers in adolescent decision-making, while tracking eye movements and brain activity. This research, and the new study, may inform new ways of coaching adolescents to make smarter decisions, Huettel said.

More information: "The Rational Adolescent: Strategic Information

Processing During Decision Making Revealed by Eye Tracking," Youngbin Kwak, John W. Payne, Andrew L. Cohen and Scott A. Huettel. *Cognitive Development*, Oct-Dec. 2015. DOI: 10.1016/j.cogdev.2015.08.001

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