

# The art of the deal: Can game theory help parents?

April 26 2016, by By Leanne Italie

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## THE GAME THEORIST'S GUIDE TO PARENTING

How the Science of Strategic  
Thinking Can Help You Deal  
with the Toughest Negotiators  
You Know—Your Kids

Paul Raeburn and  
Kevin Zollman



This book cover provided by Scientific American/Farrar, Straus and Giroux shows "The Game Theorist's Guide to Parenting" by Paul Raeburn and Kevin Zollman. Raeburn, a father of five, and Zollman, a game theorist and academic,

have teamed to show parents how the complicated mathematical theory can help with one of life's most high-stakes strategic challenges: parenting. (Scientific American/Farrar, Straus and Giroux via AP)

Game theory, a branch of mathematics dealing with strategic thinking, has been applied to scenarios of war, business and biology. But parenting?

You bet, said writer and New York City dad of five, Paul Raeburn, who has written a book with academic Kevin Zollman noting all the ways dealing with kids might go more smoothly if only parents knew a little bit about game theory.

The book, "The Game Theorist's Guide to Parenting," was published in April by Scientific American / Farrar, Straus and Giroux.

A conversation with Paul Raeburn:

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AP: What motivated you to take on game theory as it relates to parenting?

Raeburn: I didn't know a whole lot about game theory but I was delighted to take a look at a new approach to parenting because as the father of five kids I've pretty much tried everything and I have what you might call a mixed record. All of my kids have turned out fine but it's been a real learning experience along the way.

Basically, without getting into the mathematics of game theory, which are beyond me, the idea is that game theory is sort of an organized way

of studying strategies. As parents, it can give us confidence to do the things that we instinctively think we should do.

AP: In parenting, does game theory rely on the notion of negotiating. Should parents be in the business of negotiating?

Raeburn: In negotiations you have to be strategic. Our children are some of the toughest negotiators we will face. They really can stick to their positions. So the ideas of game theory that are applicable to parenting include how to better negotiate with your kids, how to be fair, how to encourage them to be fair with one another and how to encourage them to cooperate with one another.

AP: What are some specific game theories that relate to parenting?

Raeburn: For instance, the idea of fairness. If you're going to share a piece of cake and you want to share it fairly between your [son](#) and your daughter, one game theory technique is called, 'I cut, you pick.' So your son, who is older, takes the knife and cuts as carefully as possible into two pieces and then your daughter picks the one she wants.

He has the incentive to make them as identical as possible because if they're not he's going to get the smaller piece. That works pretty well. The problem there is who cuts, so a game theorist would say it's important to make sure you alternate who cuts. That works pretty well.

AP: What about cooperation?

Raeburn: Suppose you ask your son and daughter to clean up the bedroom. You've promised them [ice cream](#) if the room gets cleaned up. You come back in a little while and the room is clean, but your son looks exhausted and your daughter is sitting in a corner playing with one of the toys.

It turns out he's done all the work and she hasn't done any of it, so do they both get the ice cream? Will your son be willing to do all the work next time? Again, alternating would work. He puts away one toy and she puts away another.

The [game theory](#) behind that is called tit for tat: The other party cooperates with you, so you cooperate with them.

AP: Can you talk about the principal-agent relationship?

Raeburn: In these kinds of relationships, it's always the agent who knows more. So when you send your son to school and he comes back and tells you everything is fine, you the parent are the principal because he knows everything and he only gives back to you some of that information. But there are indirect ways you can discover whether he's doing his best in school without prying too much or making him a neurotic mess to get A's when he's only capable of B's.

Let's say he's in high school and he's starting to think about college. He finds a college that he likes that's a reach. You sit back and see what happens and suddenly he's doing better in school. That's telling you all he needed was the incentive.

Sometimes, you don't have to do anything. You can find out much more by sitting back.

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