The Evolution of Trust Follow-up

https://ncase.me/trust/

Discussion questions

1. Is this mathematical thinking? What parts do you think of as mathematics? Did using mathematics help us arrive at any conclusions we would have had difficulty seeing otherwise?

2. Three takeaways from the author are

   (a) repeat interactions,

   (b) possible win-wins,

   (c) low miscommunication.

   Do you agree with these conclusions? Which do you think are the most important. Do you think these conditions would translate into change in the real world?

3. Let's step back and look at this more meta: Overall, do you think the conclusions the author came to are reasonable? What do you think about how they modeled the situation? Do you draw different conclusions?

4. Nicky Case says:

   If there's one big takeaway from all of game theory, it's this: **What the game is, defines what the players do...In the short run, the game defines the players. But in the long run, it's us players who define the game.**

   One might argue that peoples conceptual models of social interaction are a set of rules they define. Since mathematics is concerned with models and how to understand them, do you think that if people had more mathematical tools it would change the way they define social rules? Can you think of any examples of this from your own life or something you have heard?

5. Game theory is concerned with modeling these two person interactions. Can you think of other situations that game theory could model? What would the payouts be? What strategies would you recommend for the players? Does it matter if it is repeated? Here are some classic examples if you can't think of your own:

   - US-Soviet arms race
   - Chicken (this is that game where you drive at each other until someone swerves...and if no one swerves...)
   - rock-paper-scissors

6. One of the most mathematical thinking parts of math is asking mathematical questions. For example, in the sandbox mode we could change the conditions and then make a prediction about what would happen. After making the prediction we can run the sandbox mode to check our theory. Can we make a mathematical theory to explain the results?

   - What happens if you change the payouts so that nothing occurs if they both guess the same, but if the do opposite things the person cheating gets +2 and the cooperator gets +1?