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A study of understanding other people's Intention in Ultimatum Game

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Abstract

How do players understand opponents' intention or predict others' behaviors when playing games. Not all the players can predict others' behaviors and make optimized choice to correspond those. What are the factors that would affect such optimized choice. In order to understand this problem we have used ultimatum game to discuss some concrete conditions of social behaviors.

In the ultimatum game, two players must split a sum of money S . The first player(proposer) offers some portion x of the S to the second player(responder). The responder has two choices-accepting or rejecting the offer. If he accepts, he will receive x and the proposer will receive $S-x$; otherwise, both of them receive zero. It tends to be that most of the proposers split the money fairly, and also many responders reject stingy offer which is lower than 30% of S .

Why do us not behave as a homo economicus who would split the money by $(1: S-1)$, and accept all positive offer. Two theories-inequity aversion and reciprocity-were suggested to explain such phenomenon. If justice is the preference or a skill of humanbeing, what would they do in multiplayer-game. In this study I have designed two experiments in order to

understand the conception of equity of players in three-person ultimatum game. We found that there are two dimensions of equity in ultimatum game. First is “absolute equity”, and the second is “relative equity”. People who have a conception of absolute equity would divide a sum of money by the number of players while others divide the money into two equal parts giving to proposers and responders with the conception of relative equity.

On the other hand, I had designed another experiment to investigate what responders would behave if they find the proposers might swindle them at 50% probability. In other research it has been proved that if the proposer makes an offer out of spite, the responder will reject it. It seems that the responder won't reject an offer if he can't make sure whether the proposer is swindling him or not.