Nainita Madurai

Opportunity Costs in Game Theory

 Opportunity costs are the basis of decision making for individuals taking part in a cooperative game, such as the ultimatum game. In economics, an opportunity cost is the next best option that is forgone to do what is actually done. We see that people rationally will decide to do what results in the greatest utility, or satisfaction, for them, but this still means that something is given up in order to pursue that decision. If we assume that people are rational, self-interested agents, then in a cooperative game such as the ultimatum game, neither player would win. The ultimatum game is a game in which a player is given a set amount of money and has to decide what amount to give the second player. The second player can thereafter reject the first player’s offer, in which case neither player receives any money, or he can take the money. The first player will weigh his options and decide the amount to give the second player based on what he is giving up in order to “win” the game, or get the best utility out of the game. In this the game opportunity cost would be either giving a “fairer” amount of money, or risking the loss of all the money by giving a less “fair” amount of money. In any cooperative game, people use the concept of opportunity costs to weigh their options to get the best utility they possibly can, the catch is that their utility is based on the opportunity costs of another person.