Justice and Fairness in Economic Decision Making

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TJHSST Computer Systems Lab 2006-2007

Introduction

Current research in the field of experimental economics draws heavily on the idea of a social sense of justice and fairness, specifically in the case of distributive justice. Distributive justice is the type of justice that is associated with allocating limited resources to multiple parties, deciding which party is entitled to a greater portion of the entire endowment. Although the underlying principles are same across all types of justice, distributive justice should not be confused with the retributive justice we see in court cases.

Though justice and fairness are similar concepts, we hypothesize that they impact economic decision making in significantly different ways.

Description

First, we distinguished a just outcome from a fair outcome according to current philosophy and legal theory:

Justice motivates people to strive for an outcome in which all parties involved receive their "just desert." Justice can be thought of as a hierarchical approach to an allocation where some people are inherently more deserving than others.

Fairness motivates people to reach an outcome in which payouts are equitable or in which the parties involved have reached an inequitable allocation by some fair procedure. A *fair procedure* is an allocation method that impartially entitles a party to the limited resource. A coin flip or a game of Rock, Paper, Scissors is an example of a fair procedure. Note that no one has an advantage at the beginning of the fair procedure, thus there is equal opportunity in the absence of equal reward.
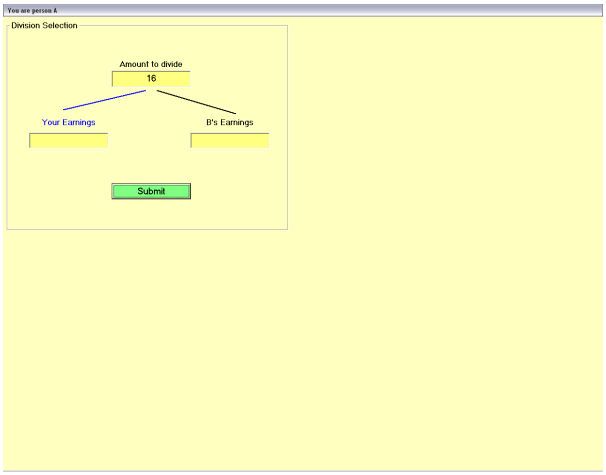
Justice and fairness, or the social understandings of those concepts, are the motivational forces that drive people to reach a just or fair outcome.

With this in mind, we designed an experiment to test the power of justice and fairness to diminish selfish economic behavior. 80 subjects participated in a Dictator Game (DG). The DG is a well-replicated game in which two people, Player A and Player B, are paired by the experimenter and given a monetary endowment. Player A must then unilaterally decide how to allocate the endowment between the two players. Because Player A's decision is final, whatever amount Player A decides to give to Player B is considered a gift. Once Player A has made a decision, and the experiment monitor pays them in cash. Because Player B has no recourse, the equilibrium of this game is where Player A keeps all of the endowment. However, this behavior is only observed in about one-third of Player A's while about one-quarter share the endowment equally with Player B.
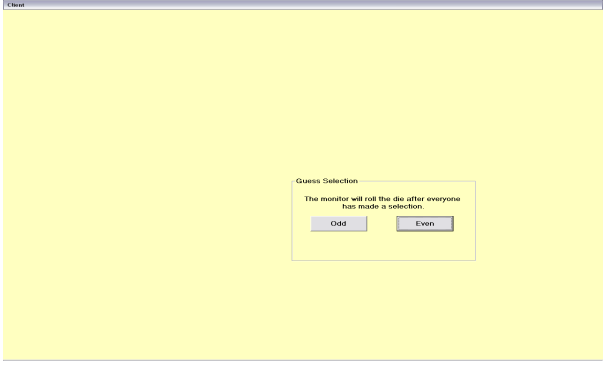
Different treatments of this game can generate different gift-size distributions when Player A feels more entitled to the endowment. One well-replicated treatment is where the players take a random trivia quiz, and then the experimenter ranks their scores on the quiz. Those with a higher rank become Player A's and are paired with someone with a lower rank. We argue that this treatment confounds justice and fairness because there is a hierarchy (justice) as well as a fair procedure; therefore, it is impossible to determine which factor plays a greater role in the decision.

In order to isolate the effects of justice on decision making, Player A must feel entitled to the endowment because he or she has greater desert, not merely because of a fair procedure.
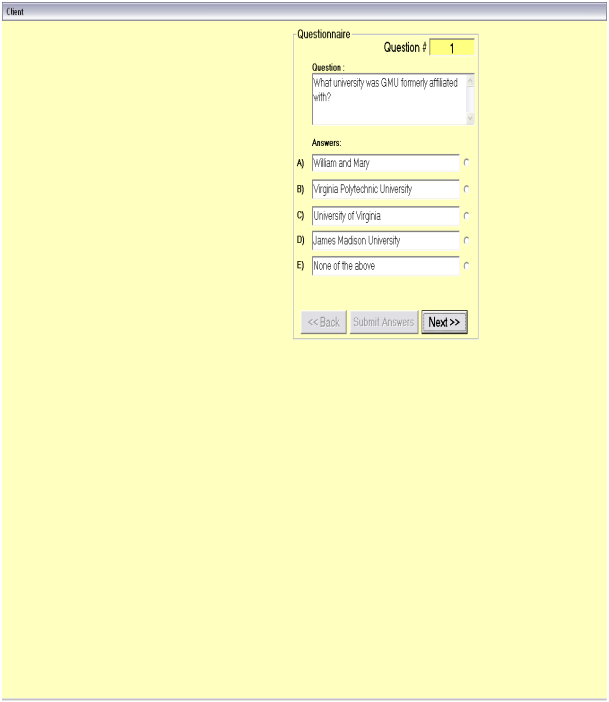
In order to isolate the effects of fairness on decision making, Player A must feel entitled to the endowment without feeling more meritorious than Player B. More importantly, all of the players must agree to the rules of the fair procedure; otherwise, they could legitimately protest the result because their concerns were not reflected in the procedure. With this in mind, all players must have the option to leave after they are finished reading the instructions.

The interface for Player A

This frame appears in the lower-right corner of the screen after everyone has finished the instructions in *Die Roll*

A sample question from the quiz

Experimental Design

Approximately 80 George Mason University undergraduate students were recruited to participate in an experiment on economic decision making. They were paid in cash the amount of the initial endowment that they possessed at the end of the experiment. The experiment was administered over a LAN connection to visually isolated computer terminals. All of the treatments are Dictator Games. They differ only in the method of determining the position of Player A.

Treatment A: *Seniority*
> Players are ranked by their number of credit hours completed or in-progress. All players submit their number of credit hours when they sign the release form before they enter the room. We do not suspect anyone of being dishonest because they do not know what the purpose of that information. We chose to use seniority as the criterion for desert because more senior students already enjoy special privileges around campus (e.g. housing, parking, course selection), which makes it a logical method of ranking.

Treatment B: *Die Roll*
> Players choose even or odd immediately after the instructions. The monitor then rolls a six-sided die in the front of the room and announces the result aloud as well as inputs it into the server computer. The players who correctly guessed the result of the die become Player A's.

Treatment C: *George Mason Trivia Quiz*
> Players take a quiz containing trivia about George Mason University. Their scores are ranked as described before. This treatment serves as a baseline for comparison.

Treatment D: *Random* (Control)
> This is the basic Dictator Game in which players are randomly paired and one person is randomly assigned to be Player A. It is in essence the same as *Die Roll*, but the fair procedure is less pronounced.