

The Betting Game

1. Description

The Betting Game implements a two-player zero-sum game where participants choose whether or not to bet after receiving information about a payoff-relevant state variable. If either player chooses to not bet, then a game of paper-rock-scissors is played. We view this as equivalent to a certain outside option payment, except that it reduces a bias to bet in order to "be more active" or "have more fun". There are four states, $\{A,B,C,D\}$ that are a priori equally likely. Player 1 has the information partition $\{\{A,B\},\{C,D\}\}$, while Player 2's partition is $\{\{A\},\{B,C\},\{D\}\}$. The payoffs are designed so that whenever a two-element partition element is observed, a player who naively places equal probability on the two states finds it optimal to bet. However, there is a unique equilibrium that can be reached through iterative elimination of strictly dominated strategies, in which no bet is ever realized.

This game is currently being used to help understand the properties of some behavioral game theoretic models including Cognitive Hierarchy and Quantal Response Equilibrium, as well as a set of hybrid models.

2. Sample Parameter File

View [betting-sample.txt](#).

Download [betting-sample.txt](#).

3. Download

[Click here for the current release of the software.](#)