

### One Page abstract

Title: Biases in Bluffing - Theory and Experiments

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*Abstract:* In some contexts people may be better at recognizing lies than truths or better at recognizing truths than lies. The implications of such detection biases are analyzed in a pure conflict of interest game with private information and communication. If the bias is modeled as a perfect signal from Nature that is sent with a certain probability conditional on the truth of a message, the bias can be incorporated into a game theoretical equilibrium analysis. Such an analysis reveals that the detection bias makes the equilibrium set shrink to a unique non-pooling equilibrium. In this equilibrium, the better a player is to detect lies the more often will the opponent player lie. This counter-intuitive result could be used in hidden information problems.

In the bluffing game experiment, subjects were telling the truth too often according to standard game theoretical predictions, but in line with one of the detection bias hypotheses. However, not all experimental observations supported the detection bias hypothesis. Other findings were a significant positive correlation between self-rated bluffing ability and actual bluffing performance. Altruism was significantly negatively correlated to bluffing performance and a corresponding positive correlation was found for cooperativeness. Gender mattered in that subjects were significantly more prone to lie to a female opponent than to a male. Furthermore, even if there was no significant difference in bluffing performance between males and females, the former rated them selves as significantly better at bluffing than the latter.