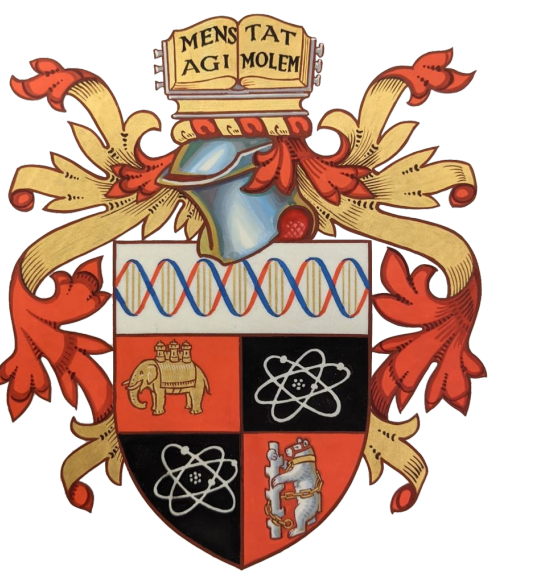# Contractualist Moral Decision Making
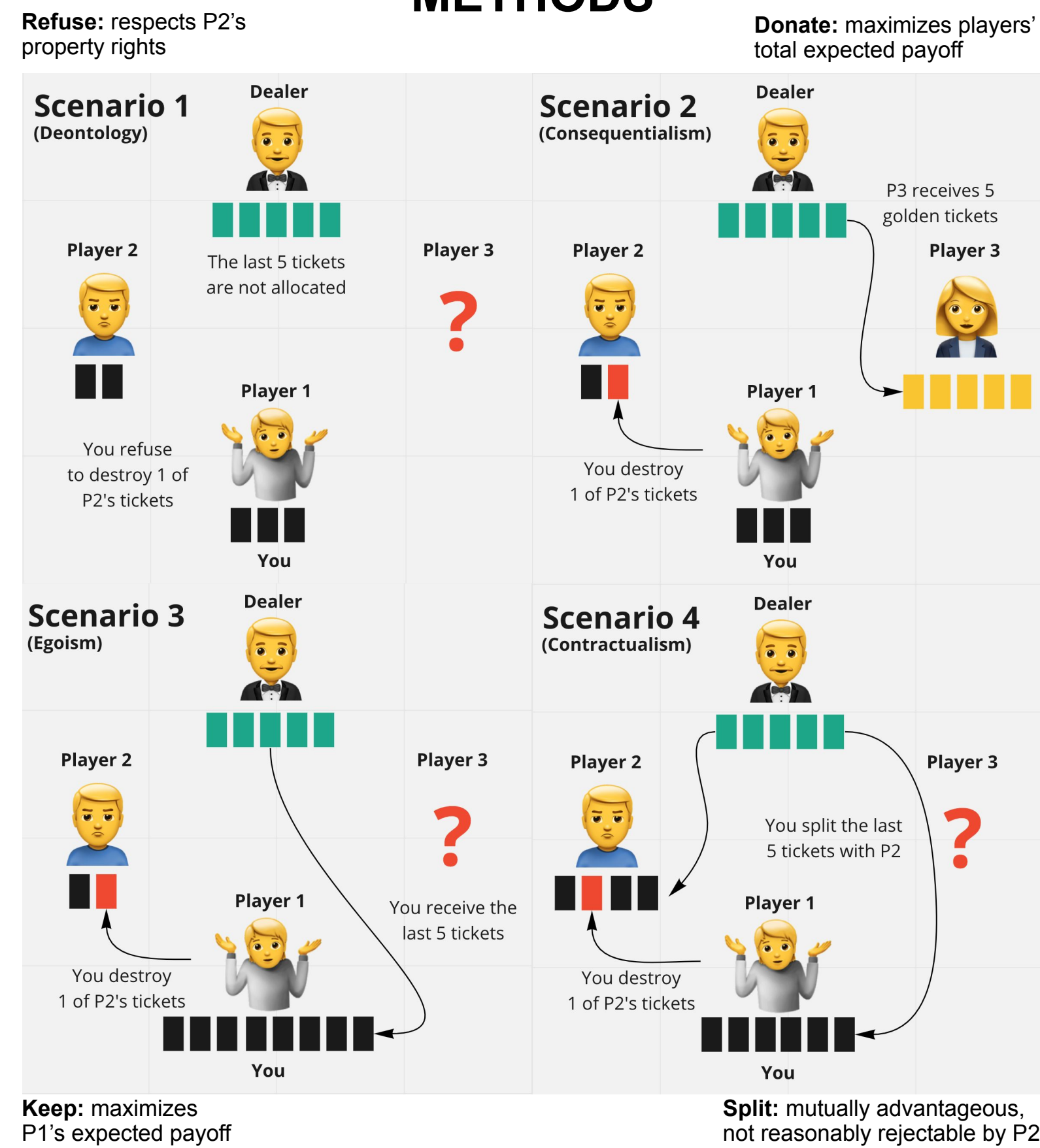## Empirical Evidence from an Economic Game

Arthur Le Pargneux, Nick Chater, Hossam Zeitoun

ABSTRACT

Descriptive models of moral judgment and decision making often appeal to two normative ethical theories: consequentialism and deontology. A third influential strand in moral philosophy – contractualism – has received little empirical investigation: direct evidence of contractualist intuitions is scant and limited to hypothetical judgments in artificial moral dilemmas. We design a new incentivized game inspired by the "blue house dilemma" [1] and investigate contractualism in three pre-registered online experiments (n = 2,764, Prolific) involving real economic decisions. We find that incentivized decisions and moral judgments in our game are consistent with contractualism and difficult to explain by appeal to consequentialism or deontology. We also elicit more contractualist decisions with two different manipulations.

METHODS

Refuse: respects P2's property rights
Donate: maximizes players' total expected payoff
Keep: maximizes P1's expected payoff
**Split:** mutually advantageous, not reasonably rejectable by P2

Contractualism: an act is morally permissible if all the parties relevantly affected by the act could reasonably agree to it. **Consequentialism:** the morality of an action depends on its consequences only. **Deontology:** certain actions are inherently right or wrong, depending on specific moral rules. **Lottery game rules:** Participants are matched in pairs. There are ten lottery tickets in total but one unique winning ticket. P1 (Player 1) initially receives three tickets and P2 receives two tickets. P1 selects their preferred scenario on how to allocate the remaining five tickets (**Decision**). P1 also selects the scenario that they think is most morally acceptable (**Judgment**, order of questions is randomized). Then the lottery takes place and winners receive payments via Prolific.

RESULTS

In order for the last five tickets to be distributed, **P1 must destroy one of P2's tickets, a morally debatable action**. In the treatment condition, each scenario is characteristic of strong versions of each moral theory. According to contractualism, the permissibility of an action depends on the preferences of affected parties. Thus, we randomly allocate participants to one of three conditions and we manipulate the extent to which P2 is likely to be identified as an affected party by P1. We hypothesize that decisions and judgments will be less characteristic of contractualism in the two control conditions.

Figures 1 and 2: P values from Wilcoxon-Mann-Whitney tests, error bars are SEM.

STUDY 1 (n = 1,204)
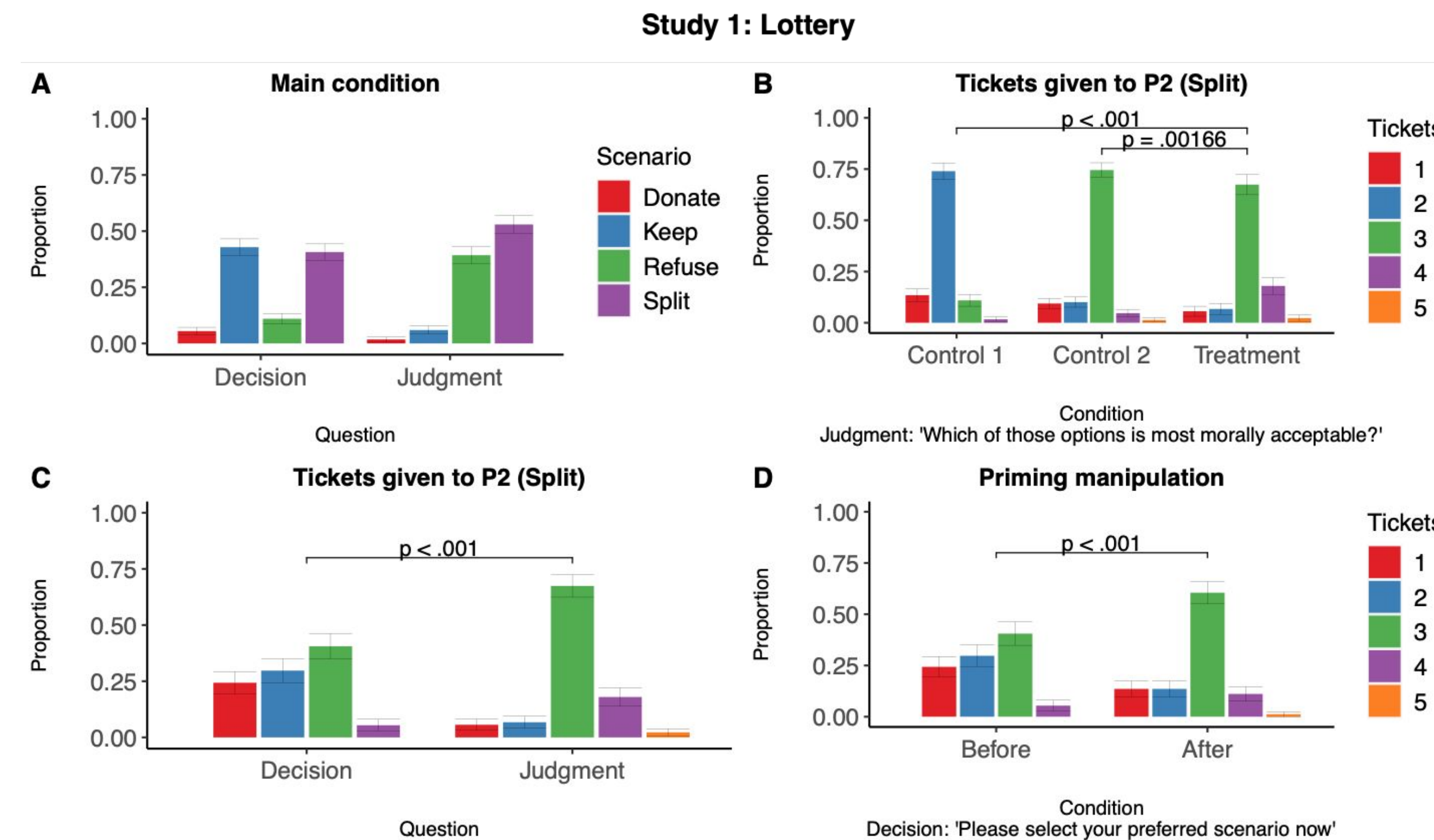
A. In the main condition, many decisions are consistent with contractualism (**Split**) or egoism (**Keep**) and much fewer are explained by deontology (**Refuse**) or consequentialism (**Donate**). Split is the most morally acceptable scenario for most participants. **B.** For participants selecting Split, the higher the number of tickets they give to P2, the more characteristically contractualist their decision or judgment is. As predicted, results suggest that decisions and judgments are more characteristically contractualist when P2 is more likely to be identified as an affected party by P1. **C.** Judgments are more characteristically contractualist than decisions. **D.** We elicit more characteristically contractualist decisions by priming participants to think in moral terms.

STUDY 2 (n = 1,205)

Study 2 is a conceptual replication of study 1 which uses monetary tokens instead of lottery tickets to ensure certainty of payoffs. We successfully replicate all the main results from study 1. **Study 3** is based on the treatment condition of study 1. We elicit more characteristically contractualist decisions by asking participants to engage in **virtual bargaining** [2] - a specific form of contractualist reasoning - by mentally simulating a conversation between the affected parties ("Imagine that P1 and P2 are allowed to communicate with each other and to decide together about what to do. Please select the option that you think they would choose.") before selecting a scenario.

STUDY 3 (n = 355)
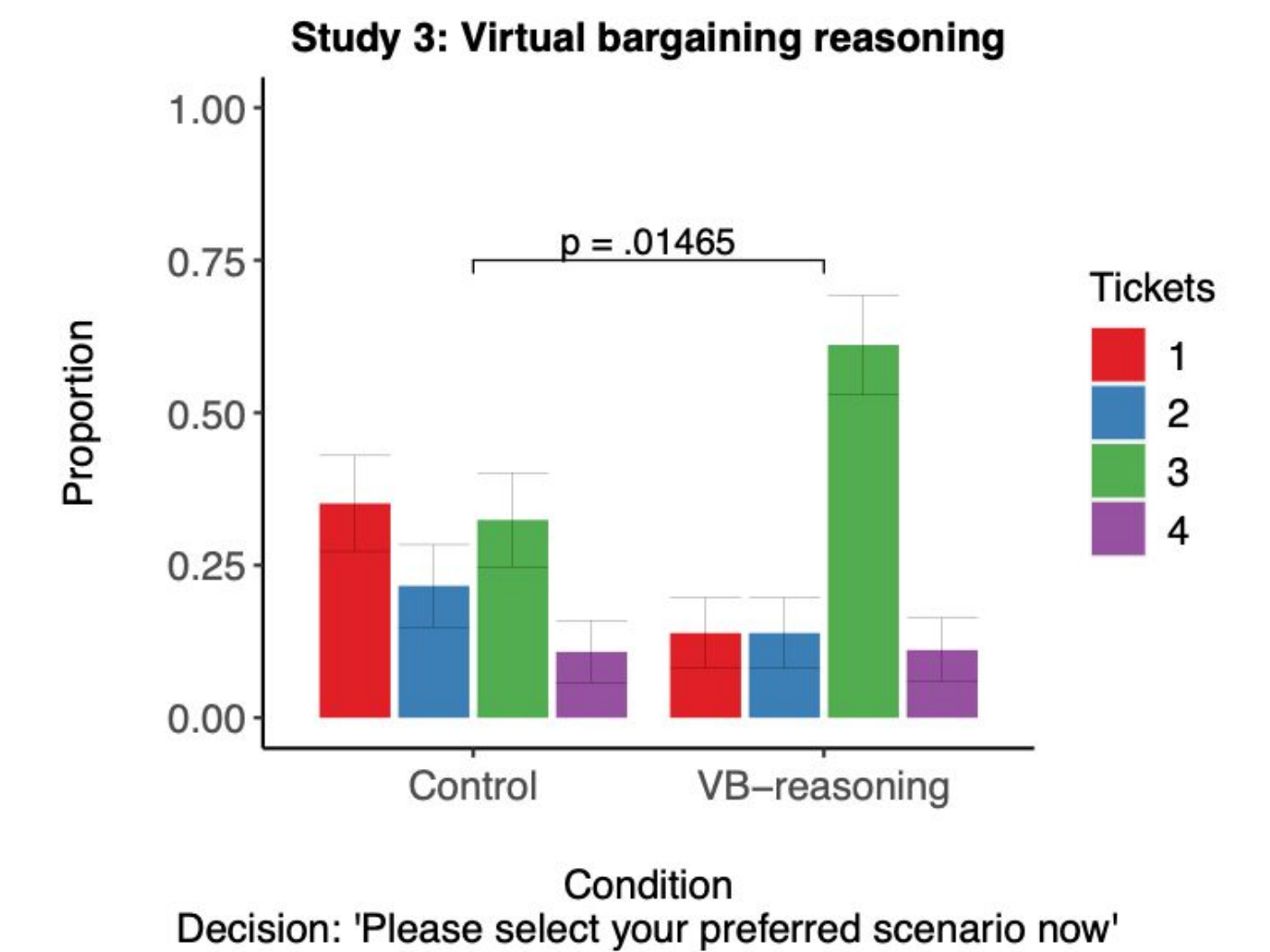
DISCUSSION

We present the first direct demonstration of contractualist moral decisions in an incentivized setting. Our results are difficult to explain by appeal to current models based on psychological rules and calculation of consequences [3-5]. We propose that contractualist concerns (e.g., agreement, consent, mutual interests) are crucial to understanding moral cognition. A comprehensive descriptive theory is likely to incorporate elements of all three theories: consequentialism, deontology and contractualism [1]. Our findings are consistent with a virtual bargaining view of social interactions and coordination [2]: participants in our game act as if they had been able to agree about what to do, without having to explicitly communicate with each other.

References

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[2] Misyak, J. B., Melkonyan, T., Zeitoun, H., & Chater, N. (2014). Unwritten rules: Virtual bargaining underpins social interaction, culture, and society. *Trends in Cognitive Sciences, 18*(10), 512-519.
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