Replication of Jordan et al. 2016
"Uncalculating cooperation is used to signal trustworthiness"
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The original paper includes two studies. We randomly chose study 1. In this between-subject experiment, participants as player As play a two-stage economic game: stage 1 being a Helping Game which they play by themselves, and stage 2 being a Trust Game which they play with another participant. In the Helping Game, each player A receives a certain monetary amount and has to decide whether they want to pay a cost to help out another participant. The decision can be made either by looking at the precise cost for helping or making their decision without looking at the cost. Participants in the Helping Game are randomized to one of two groups. In one group, participants are told that their looking decisions and their helping decisions can be monitored by the subject they will later play the Trust Game with (process observable condition). In the other group, the players are told that only their helping decisions can be monitored by the subject they later play the Trust Game with (process hidden condition). Player As are then receivers in the Trust game. Player As look at the costs of helping more often in the Helping Game if the player Bs in the Trust Game cannot monitor their decisions to look at the costs.

Hypothesis to replicate and bet on: Participants are more likely to behave in an uncalculating manner in the process observable condition (when their reputation is at stake) than in the process hidden condition (when their reputation is not at stake). To evaluate this hypothesis, the authors perform a logistic regression (coefficient = –0.486, $p = 0.002$); p. 8660.

Criteria for replication: The criteria for replication are an effect in the same direction as the original study and a two-sided p-value < 0.05 in a logistic regression.

Power analysis: The original sample was 735 player As. The standardized effect size (Cohen's d) was $d = 0.230$. To have 90% power to detect 67% of the original effect size, a total sample size of $n = 1791$ player As is required. In addition, the replication involves collecting data for additional 1791 participants who are player Bs, but these are not included in the test.

Sample: The original study excluded participants who did not complete all measures within the survey. Furthermore, the original study only allowed participants with a unique IP address to participate in the study. In cases where responses were submitted from different accounts (i.e., different MTurk IDs) but with the same IP address, the original study excluded the chronologically second response. Finally, subjects who participated in the role of Player B were not subsequently allowed to participate as Player A, and vice versa. We will use the same exclusion criteria. We will only recruit participants with a HIT approval rate of 95% or higher. We will also check all IP addresses via https://www.ipqualityscore.com/; and we will remove any participants where one or more of the following is true: fraud score >= 85; TOR = True; VPN = True; Bot = True; abuse velocity = high. The replication sample size is the sample size after any exclusions of participants.

Materials: We will use the same material as in the original study, kindly provided by the original authors. In particular, the experiment will be conducted using the original *Qualtrics* survey.

Procedure: We will closely follow the procedure of the original experiment. The following summary of the experimental procedure is therefore largely based on the description of the experiment in the main text of the article (p. 8659) and the "Materials and Methods section" (p. 8663)

Participants will first be shown a Captcha, and will thereafter provide informed consent. After this we will include an attention check that participants will need to pass to continue to the study. This attention check is in addition to any other potential attention check(s) used in the original study. In the first stage of the experiment (the Helping Game; HG), participants in the role of player A will decide whether to pay a cost to benefit a recipient. This decision is made in a way that is calculating or uncalculating. Participants in the role of player A will be told that they have the opportunity to pay a cost to help another player, but that by default they do not know how large that cost is, and that they only know that the cost is some fraction of their starting endowment. Player As will then decide whether to help without looking at the cost (uncalculating behavior) or whether to look at the cost before deciding whether to help (calculating behavior). Calculating behavior is thus measured by whether or not player A chooses to look at the cost.

In the second stage of the experiment (the Trust Game; TG), participants in the role of player B (not involved in the HG) receive an endowment and decide how much to send to player A. In the process observable condition, players B can condition trust (using the strategy method) both on player A's stage 1 decision (whether player A cooperated or not) and decision-making process (whether player A chose to look at the cost or not). In the process hidden condition, player B can condition trust only on player A's stage 1 decision, and not player A's decision-making process and thus not on whether player A chose to look at the cost.

Participants will be asked seven comprehension questions to assess their understanding of the incentive structure of both stages of the game.

Analysis: The analysis code was kindly provided by the original authors and the analysis will be performed as in the original paper. That is, we will investigate whether player As look at the cost of helping less often in the process observable condition than in the process hidden condition using a logistic regression model.

Subject payments: We are standardizing payments across all replications so that studies have a certain show-up fee depending on the expected length of the study, with an hourly wage from the show-up fee of $8 and a minimum payment of $1 (for studies with incentive payment we use the same incentive payment as in the original study; and this payment is paid in addition to the show-up fee). If we have problems recruiting, we will increase the show-up fee.