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Third Party Assessments in Trust Problems with Conflict of Interest: An Experiment on the Effects of Promises

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Abstract

Is it possible to elicit reliable assessment from an assessor with conflict of interest (e.g. a professor that writes a recommendation letter for a formal PhD student)? We propose an experimental test and show that compared to a not-incentivized assessment, a promise to give a truthful assessment reduces misreporting to the same extent as incentivized assessment (i.e. when assessor gain higher payoff if assessment is correct).

Keywords: trust game; communication; cheap-talk; promises; oath

JEL classifications: A13; C91; D03

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1. Introduction

Recruiting new employees is an unavoidable task for firms, governments as well as universities. One difficulty is that information about the applicants' abilities is usually limited. In many universities, taking an example, it is common to ask for a recommendation letter by a professor that has worked together with the applicant. For such information to be useful, honest reporting is required. Some professors, however, develop a friendship with their PhD students, which creates a conflict of interest and the risk that the information is biased in favor of the applicant (Leising, Erbs, and Fritz, 2010). Assessments play a crucial role in many job markets to inform the employers about the applicants' abilities. Biased recommendations may have serious implications: Exaggerating the applicant's abilities increases the risk that the employer's expectations remain unfulfilled, often to the disadvantage of other, better candidates.

In this study we test a simple mechanism to overcome such biased assessments. We observe the behavior of assessors in three treatments: when they are *not (monetary) incentivized* to tell the truth, when they have monetary *incentives* to tell the truth, and when they are not incentivized but sign a statement of honesty (*oath* henceforth).

There is evidence that promises work.¹ Charness and Dufwenberg (2006) examine experimentally the impact of communication on trust and cooperation. They suggest that a promise works because of guilt aversion: A guilt-averse person does not want to let down others' expectations and is therefore motivated by beliefs about others' beliefs. An alternative explanation is that people may have a taste for keeping their word (e.g. Ellingsen and Johannesson, 2004). Using a novel design, Vanberg (2008) found support for the later explanation i.e. people have preferences for promise-keeping per se.

Jacquemet et al. (forthcoming) explore the impact of oaths in an incentive-compatible second price auction. The oath treatments presented subjects with the opportunity to sign an oath prior to participating in the auction. By signing the oath, subjects "swear on their honor" to tell the truth and provide honest answers. Subjects who took the oath were on average less likely to either overstate or understate their bids. Carlsson et al. (2010) tested the oath in the field using non-market valuation surveys and found that the share of zero WTP responses and extremely high WTP responses decreases, which could be interpreted as reduced dishonesty.

¹ Notably, under standard economic assumptions, e.g. payoff maximizing and self-regarding agents, cheap-talk should have no effect on behavior.

Shu et al. (2012) find that signing a statement of honesty at the beginning instead of at the end of a self-report serves as a commitment and leads to significant reductions in misreporting.²

We extend the existing literature on promises and oaths by asking for statements not about own intentions, but about information concerning the trustworthiness of friends.

2. The Experiment

2.1 The Trust Game and Treatments

In this study we extended a binary trust to include an additional third player, called the Assessor. The game starts with the Assessor, who has private information about the trustee, because the Assessor and the Trustee are friends and know each other prior to the experiment, which is common knowledge. The Assessor has to assess whether the Trustee will later return the trust or not (i.e. give a *positive* or *negative* assessment of the Trustee's trustworthiness).³ Next, the Trustor makes his choice whether to grant trust or not, and is free to condition his choice on this assessment. The Trustor's choice is elicited using the strategy method. Finally, without knowing both preceding players' choices, the Trustee decides whether to return the trust or not. The game is played one-shot and shown in Figure 1 (terminal nodes show the payoffs in Euros). We implemented three treatments which differ in how the Assessor's choice was framed and incentivized:

NotIncent: The Assessor is asked to assess whether the Trustee will return the trust (positive assessment) or not (negative assessment). Assessors receive 6.5 Euro for their assessment.

Incent: As *NotIncent*, except that the Assessor receives 10 (3) Euro for a correct (wrong) assessment. The assessment is thus incentivized.

Oath: As *NotIncent*, except that the Assessor is asked to sign a statement of honesty with the following wording before making the assessment:

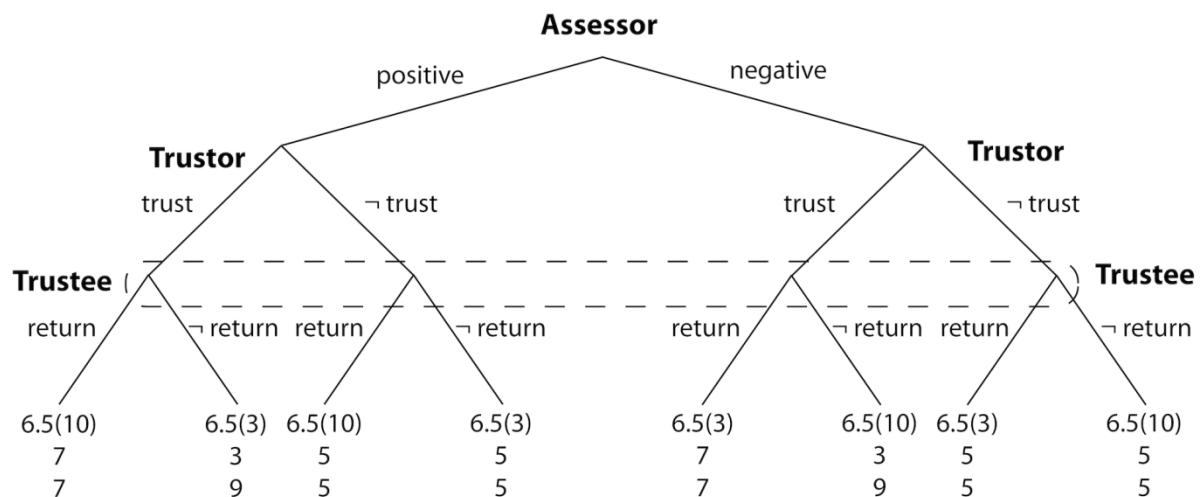
I hereby give my word of honor that, I to the best of my knowledge, will provide an honest assessment of my friend's decision.

² Signing at the end is currently the predominant practice for e.g. tax returns or insurance policy forms.

³ In the experiment we used a neutral framing (e.g. choose left or right) and did not mention the word trust.

After every Assessor had signed the statement, the document was collected and it was announced that everyone had signed the oath. It was also made clear to the subject that signing the oath had no legal consequences.

Fig 1. Trust game with Assessor: Numbers in parenthesis indicate payoffs in the *Incent* treatment. Assessor and Trustee are friends with each other.

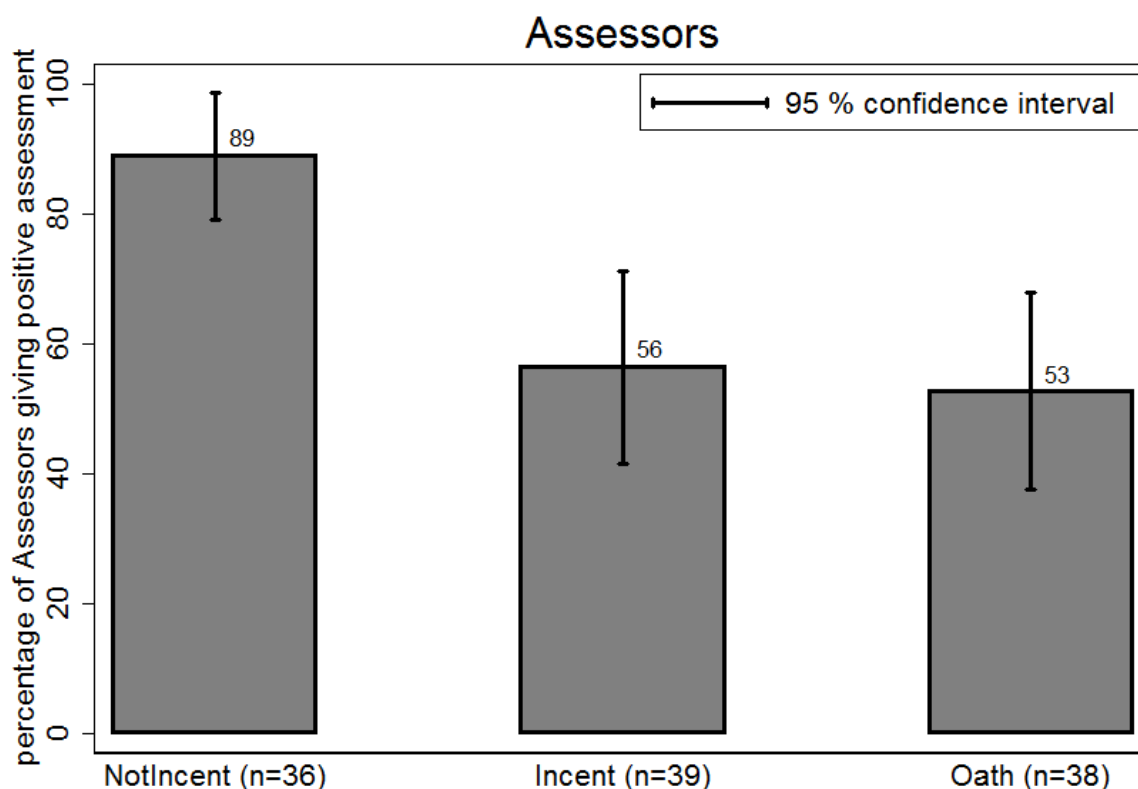


2.2 Procedure

We ran twelve sessions with 18 to 30 subjects in each session. The subjects earned between 5.5 and 12.5 euros with an average of 8.6 euros. The experiment lasted for approximately 50 minutes. In total, 339 students participated in the experiment with 108 (*NotIncent*), 117 (*Incent*) and 114 (*oath*) subjects respectively. The subjects were undergraduate students from the Friedrich Schiller University Jena (Germany) and were recruited using ORSEE (Greiner 2004). Invitations to subjects in the role of Assessors and Trustors asked these subjects to come to the lab together with a same gender friend. The experiment was programmed and conducted in z-Tree (Fischbacher 2007).

3. Results

The results are presented starting with the choices of the Assessors, then the Trustors, and finally the Trustees. Figure 2 gives a visual impression of the assessments made by the Assessors.

Fig. 2. Share of Assessors giving a positive assessment.

The share of Assessors giving a positive assessment of their friend's trustworthiness is greatest in treatment *NotIncent* (89% positive assessments). Incentivizing honest reporting in the *Incent* treatment significantly reduces positive assessments to 56% ($z=3.13$, $p<0.006$)⁴. A very similar and significant reduction of positive assessments can be observed in *Oath*, with 53% positive assessments, ($z=3.13$, $p<0.002$), such that the differences between *Incent* and *Oath* are negligible and insignificant ($z=0.33$, $p=0.739$). Since misreporting for the friend's benefit obviously implies a positive assessment, this result suggests that both, incentives and oaths are successful means to increase honesty.

The share of Assessors that assessed these choices correctly was 56% (*NotIncent*), 64% (*Incent*) and 61% (*Oath*). The differences between the treatments are not significant. Since following the assessment is only beneficial to the Trustor if it is actually correct, these

⁴ The reported treatment effects in the Assessors choice are tested using two-sided difference-in-proportions tests.

figures also represent an upper bound of Trustors that *could have* maximized their payoff by granting trust after a positive assessment and vice versa.⁵

Fig. 3. Share of Trustors granting trust.

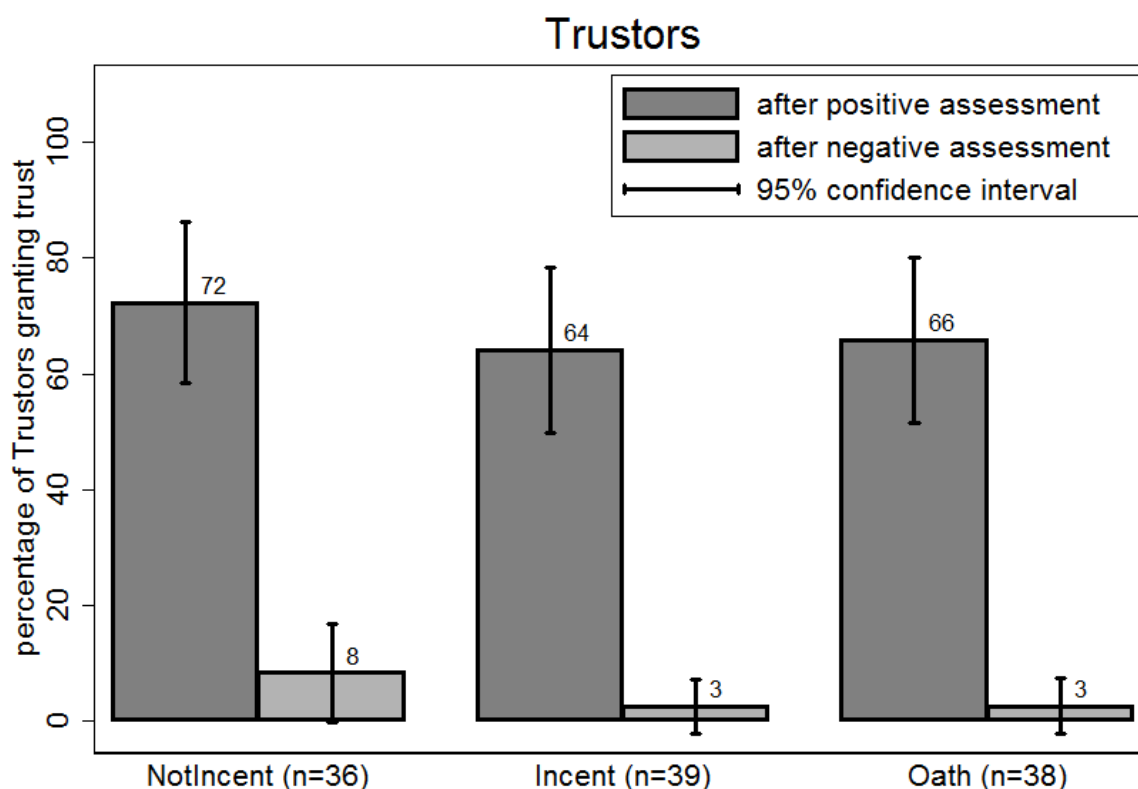


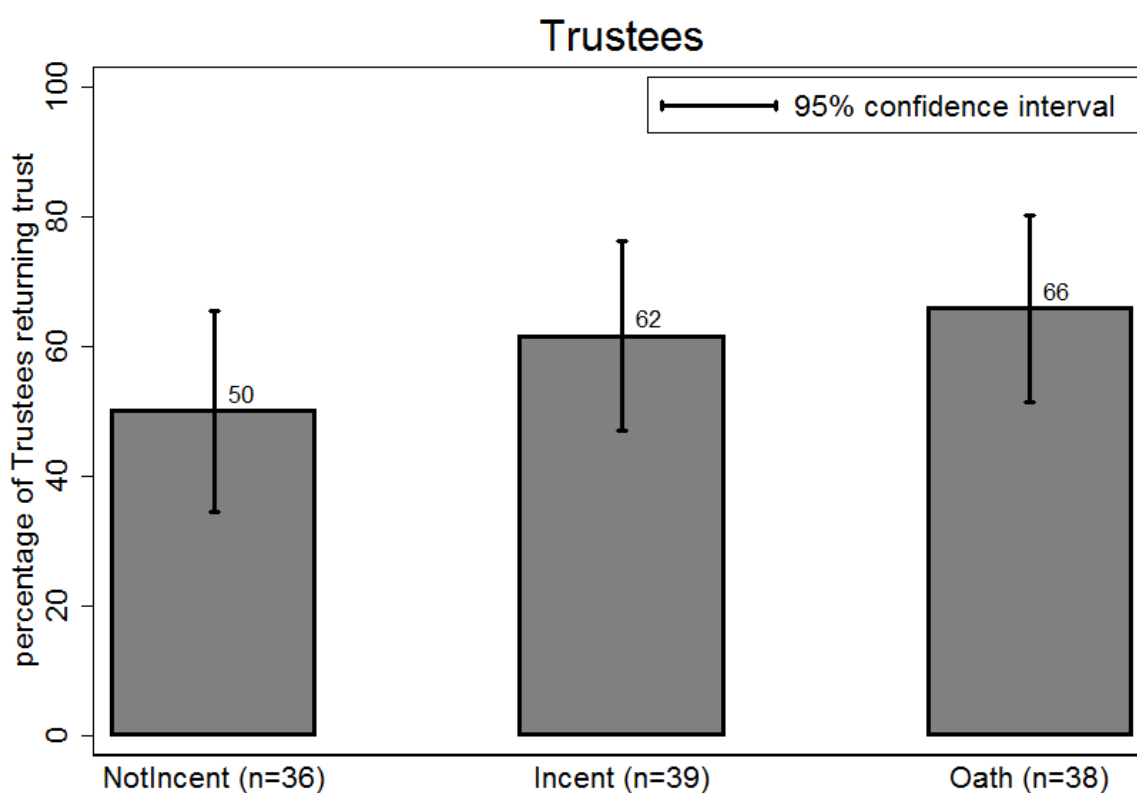
Figure 3 gives a visual impression of the Trustors' decisions. After a positive assessment, Trustors grant trust in 72% (*NoIncent*), 64% (*Incent*) and 66% (*Oath*) of the cases. These differences are, however, not statistically significant using the two-sided difference-in-proportions tests (*NoIncent* vs. *Incent*: $z=0.75$, $p=0.4514$; *NoIncent* vs. *Oath*: $z=0.60$, $p=0.5501$; *Incent* vs. *Oath*: $z=-0.016$, $p=0.876$). On the other hand, the share of Trustors granting trust after a negative assessment is only 8%, 3% and 3%. Again, the differences between treatments are insignificant (*NoIncent* vs. *Incent*: $z=1.11$, $p=0.2666$; *NoIncent* vs. *Oath*: $z=1.08$, $p=0.2783$; *Incent* vs. *Oath*: $z=0.02$, $p=0.9852$). Finally, it is evident that the Trustors are much more likely to trust the Trustees after a positive assessment. Since the

⁵ The joint probability that a Trustor follows an assessment and that the assessment is correct is 39%, 51%, and 42%, respectively (no significant differences).

confidence intervals do not overlap we conclude that the effect is significant at 5% level directly from Fig.3.⁶

The share of Trustees returning proving trustworthy by returning trust is 50% (*NotIncent*), 62% (*Incent*), and 66% (*Oath*), respectively (see Fig. 4). The differences between treatments are never significant for any conventional significance level using two-sided proportional tests (*NotIncent* vs. *Incent*: $z=-1.01$, $p=0.3145$; *NotIncent* vs. *Oath*: $z=-1.38$, $p=0.1688$; *Incent* vs. *Oath*: $z=-0.39$, $p=0.698$).

Fig 4. Share of Trustees returning trust.



4. Concluding discussion

The truthfulness of an assessment by a professor considering the abilities of a former PhD student, or an employer about a former employee, are two applications highlighting the importance of reliable communication in economic interactions. Depending on such assessments involves the risk that assessments may be biased in favor of the applicants, and hired applicants could turn out to be unreliable themselves.

⁶ It is well known that non-overlapping confidence intervals overstate significance level. The results are also confirmed using two-sided, within-sample test of proportions for any conventional significance level.

In this study, we augmented a trust game to test if elicitation under oath can mitigate biases in such assessments. Three key findings have emerged. First, the assessors were more likely to give positive assessments by stating that the trustees will return trust in the *Not Incentivized* treatment compared to the *Incentivized* treatment and the *Oath* treatment. We interpret this finding as a reduced bias in assessments. Second, there is no difference in the assessments between the *Incentivized* and *Oath* treatment. Third, we find that Trustors significantly base their decision to trust or not on these assessments. Trustors are much more likely to grant trust after a positive assessment than they are after a negative one. This is, however, not affected by the assessors' incentive structure. They choose to trust after a positive assessment at the same high level across all treatments, just as they choose not to trust after a negative assessment.

In conclusion, our results suggests that the bias in assessments can be significantly reduced using statements of honesty, a cheap and simple mechanism that appeals to psychological aspects of emotional commitments.

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