

Trust without touch: Jump-start trust with social chat

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ABSTRACT

Computer-mediated communication (CMC) is thought to be inadequate when one needs to establish trust. Rocco [4] found, for example, that discussions about agreements conducted over email were far less successful in engendering trust than those conducted face-to-face. But, if the participants met and did a team building exercise before the real task, trust was shown in spite of only having email to talk during the task. Here we show that if participants do not meet beforehand but rather engage in a text chat where they are told to “get to know each other” for a brief period, they show the same kinds of trust that you find when they meet beforehand face-to-face.

Keywords

Trust, cooperation, text chat, communication media, CMC, CSCW

INTRODUCTION

Modern communication technologies have made it possible for people to work together while being remote. With shared documents and high quality audio or video communication, remote team members produce work of the same high quality as that produced when they are collocated [3]. Tasks that require trust are an exception to this rule. Face-to-face meetings facilitate development of trust better than do computer-mediated alternatives such as email. This lack of trust has been shown to be a hindrance in tasks where participants must negotiate complex agreements [4].

One potential remedy to the problem of trust development via CMC is for participants to get acquainted face-to-face, and later collaborate via CMC. Rocco [4] demonstrated that groups that gathered for a team-building exercise first outperformed other groups using email, and did as well as groups who met face-to-face throughout the task. This finding corroborates the widely held popular business

opinion that people who have met first form better, more solid team relationship.

Unfortunately, travel costs do not always allow remote team members to meet face-to-face. So the next question is, *can we establish trust beforehand using CMC?* Moore et al [2] found that subjects did better on a negotiation task when prior to the task they exchanged personal information (a photo and a resume) and engaged in a get acquainted session via email. A question remains unresolved, however: *was the email exchange as good as meeting face-to-face might have been?* This paper addresses this question by comparing a text chat pre-meeting with a face-to-face one. We expect to find the amount of trust for people who meet face-to-face beforehand to be highest, significantly higher than those who have no exchange. The main research question is: *how effective are the pre-task meetings where participants use text chat instead of meeting face-to-face?* Can trust be engendered, in spite of the lack of sight of the partner and without the interactive gestures and tones that one gets when face-to-face?

METHOD

Fifty-seven pairs of strangers (19 in each condition) played a multi-round Prisoner’s Dilemma task [1,3]. In this task, they invested up to 40 points each round with a payoff scheme that doubled the payoff if they invested as a group. After every five rounds they could discuss their strategies and make agreements by using a text chat facility. In order to conceal exactly what the partner did on each round, a random factor that came from a list generated beforehand was applied in the same order for each pair. To encourage a bit of competition, after every 5 rounds, whoever had the highest total payoff would earn an additional 200 points. If the payoffs were even, the bonus would be split. Subjects were also told that bonuses were not given for some five rounds, to further hide the history, though in fact they were given every time.

Three conditions were run. In one condition (Nothing), groups had no prior exchange of information; one (FtF) met face-to-face for an average of 10 minutes; and one (Social Chat) used the text chat facility to “get

acquainted” for 20 minutes. Trust was measured both by their behavior in the game (the group payoff) and by a questionnaire after the session assessing their opinions about the trustworthiness of their partner. Subjects were almost all University of Michigan students. With the exception of those in the FtF condition, subjects did not see each other before, during, or after the experiment.

RESULTS

The more the pair took advantage of the pooled-double investment opportunity, the more payoff they had. Whenever one of them withheld money (taking advantage of the other’s trusting behavior), the total amount earned over the pair was lower, although the individual benefited more. The conditions differed significantly in this measurement. Those in FtF and Social Chat condition earned significantly more than those in Nothing condition. ($F(2,54) = 3.94, p = .03$, Planned contrast: $t_{FS-N}(54) = 2.55, p = .01, t_{F-S}(54) = 1.18, ns.$). See Figure 1.

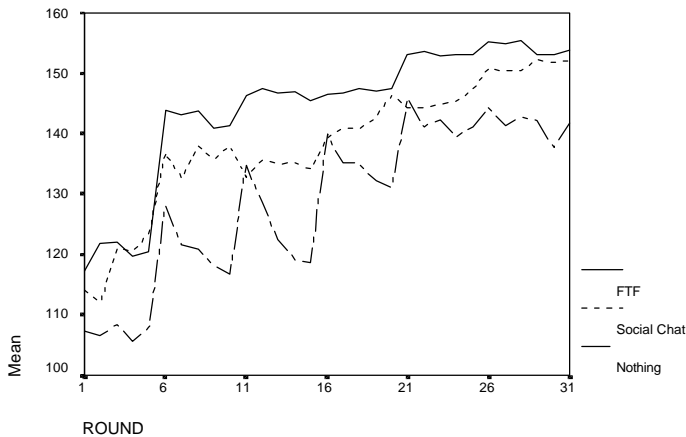


Figure 1: Round-by-round payoff average for three conditions, adjusted for random factors. The higher the number, the better the payoff, with 160 the highest.

After examining the payoff data for each round across three conditions, we found that the difference between the two groups with prior communication differed from those in Nothing condition mainly after the first discussion. The difference across three conditions was only close to significant for Round 1-5, ($F(2,54) = 2.76, p = .07$), but was significant for Round 6-31, ($F(2,54) = 3.99, p = .02$), although during both periods, subjects in the FtF and Social Chat conditions earned on average significantly more than those in Nothing condition. (Planned contrast: Round 1-5: $t_{FS-N}(54) = 2.27, p = .03, t_{F-S}(54) = .62, ns.$ Round 6-31: Planned contrast: $t_{FS-N}(54) = 2.57, p = .01, t_{F-S}(54) = 1.18, ns.$)

A closer look at the round-by-round payoff data for those in the Nothing condition revealed that during Round 6-31, subjects’ payoff levels rose right after each discussion

session but plunged rapidly in subsequent rounds. In contrast, those in FtF condition and Social Chat condition stayed at about the same level. Those in the Nothing condition offered promises to cooperate, but soon defected in subsequent trials.

Second, subjects’ opinions about their partner’s trustworthiness showed similar results. We converted the individual trust items on the questionnaire to a single number by summing the responses to individual questions. There was a significant difference across three conditions ($F(2,54) = 4.03, p = .02$, Planned contrast: $t_{FS-N}(54) = 2.80, p = .01, t_{F-S}(54) = .49, ns.$) Subjects in FtF and Social Chat condition had significantly higher levels of trust than those in Nothing condition.

DISCUSSION

Our results clearly show that trust, as measured in behaviors in a Prisoner’s Dilemma game and in post-task opinions, is higher when people exchange personal information in a pre-task session than when they do not. The fragility of trust in the Nothing condition is very apparent. But when subjects had some kind of social communication beforehand, even via CMC, the trust level falters less than in the Nothing condition and finally reaches a level as high as that in FtF condition. It is fair to say that the social communication via CMC prevents the loss of trust in CMC and builds up more robust trust. We definitely see that with some kind of social exchange, trust is easier to establish and maintain, even for people using CMC to communication during the task.

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