

Trait Inferences in the Trust Game

Bachelor Thesis

Submitted by

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Abstract

This article investigates trait inferences in social interactions. Participants ($N = 78$, 46 women, 30 men, 2 non-binary, $M_{age} = 23.5$ years, age range: 18-59 years) collected from a convenience sample of undergraduate students and social media users play the trust game and interact with several partners displaying different levels of cooperation. In this experiment, participants are either assigned to the role of the trustor or trustee and allocated to the control condition or chance condition. In the chance condition, participants are informed of the involvement of chance in the outcome of the game, such that they cannot be certain whether the allocated money was due to the partner's choice or due to chance. After each interaction, participants are asked to rate the partner on the dimensions of warmth and competence. The results show that more cooperative partners are judged to be more warm than competent and less cooperative partners are judged to be more competent than warm. This pattern exists even in the face of uncertainty about the source of the allocated money.

Trait Inferences in the Trust Game

On a normal day we encounter hundreds of people, some of whom we know, and some of whom we never interact with. Yet, without even realizing it, every person leaves an impression behind. How little do we need to know of the other person to judge them? How certain do we have to be of the information that our judgment is based upon? This article deals with such questions by analyzing participants' judgments of a partner after a single interaction in the trust game.

According to social psychological research on social perception, people form impressions of others based on spontaneous trait inferences (STIs) from observed behavior (Uleman, Newman, & Moskowitz, 1996). These STIs occur automatically and are, therefore, assumed to be activated effortlessly and unconsciously, as well as, to be efficient and uncontrollable (Todd, Molden, Ham, & Vonk, 2011). Thus, upon social interaction, multiple inferences are activated with no awareness or intention (Todd et al., 2011). This attributional process serves as a theoretical explanation for a phenomenon known as the fundamental attribution error (Uleman et al., 1996). It is the tendency to assume that the behavior of another person is caused by their stable personality disposition and to neglect situational influences on the behavior (Uleman et al., 1996). Furthermore, social psychological research argues that such trait inferences serve as a heuristic to predict future behavior (Harris, Lee, Thompson, & Kranton, 2016). This is especially useful in a social context in which the behavior of the other person cannot be predicted with certainty and therefore, requires inferences about the person's mental state. Indeed, McCabe, Rigdon, and Smith (2003) demonstrate that people attribute the behavior of others to their mental state and routinely predict how they will behave in the future. Contrary to expectations, even in single-shot games in which participants only interact once with a partner, participants still

engage in such inferences, proving how automatically such attributional processes occur (Lee & Harris, 2013).

Research on person perception has made it possible to judge categorical information about a person (e.g. gender, profession, ethnicity) with dimensional ratings about that person's traits and tendencies (Jenkins, Karashchuk, Zhu, & Hsu, 2018). The two dimensions that underlie most judgments of traits and people are the dimensions of warmth and competence (Judd, James-Hawkins, Yzerbyt, & Kashima, 2005). The dimension of warmth captures the degree to which people have good intentions toward others and the dimension of competence captures how capable people are to act on those intentions (Jenkins et al., 2018). These dimensions underlie many stereotypical judgments, such that people who tend to act in favor of others are perceived to be more warm than competent, and people who act in their interest are perceived to be more competent than warm (Cuddy, Fiske, & Glick, 2008). Rom and Conway (2018) emphasize in their study on inferences and judgments that decision-makers have more knowledge of their inner states compared to observers. Based on this fact and combined with the tendency to view oneself positively led to the finding that people judge themselves highly on warmth and competence and expect others to agree with this judgment (Rom & Conway, 2018). In the context of interactions in economic games, receiving more money than partners that are rated highly on warmth and less money than partners rated highly on competence is particularly aversive to participants (Jenkins et al., 2018). The same study highlights that perceived warmth or competence influence participants' behavior by amplifying or diminishing their concern for equity, such that more generosity is displayed for recipients that are perceived to be warm. These findings imply that differences in the perception of warmth and competence can be associated with differences in social behavior.

To assess actual social decision-making behavior in a standardized experimental setting the use of economic games is an appropriate choice as they have been modeled to represent the complexity of real-life interactions and require participants to consider the mental states of others (Lee & Harris, 2013; Thielmann, Spadaro, & Balliet, 2020). Among the economic games, an appropriate tool for measuring social predictions and decisions is the trust game. The trust game as designed by Berg, Dickhaut, and McCabe (1995) works such that the trustor sends an X amount of money (e.g. 10€) to the trustee, this amount is tripled before reaching the trustee, who then decides how much of that amount to keep and to return. The rational assumption in behavioral economics is that people act egotistically which translates into the expectation that the trustor sends no money to the trustee (Berg, Dickhaut, & McCabe, 1995). If the trustor decides to send money to the trustee, he or she is said to trust the trustee. It is argued that trust must result in an advantage to facilitate exchange, i.e. both partners must make a profit when trust occurs (Johnson & Mislin, 2011). Trust and reciprocity are closely related because reciprocating a trusting act can result in a beneficial cycle of increasing trust and reciprocation (Pillutla, Malhotra, & Murnighan, 2003). Thus, from a rational perspective, participants that send money would expect a positive return and this forward signaling (i.e. sending money) may be essential for reciprocity (Berg et al., 1995). On the other hand, the trustee takes into account the amount of money they receive relative to the total endowment and adjusts the amount of money that is returned to the trustor accordingly (Johnson & Mislin, 2011). In general, studies using economic games demonstrate that people prefer to allocate the money fairly and are aversive to receiving more or less than their partner (Jenkins et al., 2018). Cox and Deck (2006) argue that participants make their decisions based on the concern with their material well-being, the trustworthiness of their counterparts, and how their actions will be perceived by others. Hence, against the

assumption of behavioral economics, people do not always act selfishly but rather prefer to share their resources with a stranger. But does this observation also hold when there is no certainty that the allocation of money reflects the partner's choice? This question is looked into by including uncertainty in the game, i.e. participants have no evidence that the money they receive is based on the partner's choice or due to chance. When chance is involved in the outcome of the game, research shows that participants are willing to give the other the benefit of doubt by acting as though their partner intended to cooperate even if there is no evidence of such behavior (Cox & Deck, 2006). Contrary to this finding, the trustors in the trust game do not seem to expect such behavior from their partners (Cox & Deck, 2006). At the same time, in conditions with uncertainty, the trustee's ability to infer the trustor's intentions is restricted which is reflected in the finding that cooperation occurs relatively less compared to the standard trust game (McCabe, Rigdon, & Smith, 2003). Overall, the trust game is ideal for investigating trusting and reciprocating behavior, as well as, looking into the dynamics of simple social interactions.

This study builds upon the existing body of literature by combining the knowledge from social psychology and behavioral economics. The aim is to provide a unique contribution to research on trait inferences and social interactions by investigating trait impressions based on the trust game. It is expected that different levels of cooperative behavior are associated with different patterns of impressions. In the following study, participants are asked to allocate money between themselves and others. Next, they have to react to the possible choices of their partners by rating them on the dimensions of warmth and competence. The following questions are of concern here: Can participants judge a partner after a single interaction and with no more information than their partner's behavior in the trust game? More specifically, how do participants judge a partner on the dimensions of warmth and competence? How do participants

judge a partner when the outcome of their interaction is not just attributable to the partner's choice but also to chance? It is predicted that a defecting partner (i.e. low trusting/ reciprocating behavior) will be rated more highly on competence and lower on warmth. The opposite should also hold: a cooperating partner (high trusting/ reciprocating behavior) will be rated more highly on warmth but lower on competence. This is the expected pattern because more cooperating or generous partners are associated with more warmth and less cooperating partners seem to be more rational and competent (Cuddy et al., 2008). When chance is included in the trust game, there should be no distinct pattern in warmth and competence ratings across different levels of cooperative behavior since participants cannot be certain that the outcome they see is based on their partner's choice.

Methods

Participants

A convenience sample of 135 participants was collected from undergraduates at Tilburg University and social media users. Participants with missing values were removed from further analysis, leaving a final sample of 78 participants (46 women, 30 men, 2 non-binary, $M_{age} = 23.5$ years, age range: 18-59 years). For their participation in the online survey, the students received course credits, and all participants had a chance to win money.

The power analysis using G*Power revealed a required total sample size of 172 participants. The goal was to obtain 0.95 power to detect an effect size f of .25 at the standard .05 alpha error probability with an RM ANOVA between factors for four groups and five measurements.

Design

This experiment was pre-registered on the Open Science Framework (osf.io/rxvps) and was approved by the ethics review board of Tilburg University (EC-2019-EX148).

In this experiment, participants were randomly assigned to one of two conditions (control condition or chance condition) and within the condition, they were assigned to one of two roles (player 1 or player 2). In this case, player 1 referred to the trustor, and player 2 referred to the trustee. After the collection of data, participants were randomly paired with the opposite player, using the strategy method, to compute payments. Two pairs, one from each condition, were randomly chosen and paid based on their choices in the trust game. The experiment was a repeated trust game consisting of five trials, such that each player had to react to every possible outcome.

The manipulated variables of the experiment included the cooperation rates that were measured using the options of allocating 0%, 25%, 50%, 75%, and 100% of the money to the other player. More specifically, the cooperation rate of the trustor was the proportion of the endowment (in total 10€) sent to the trustee, which consisted of the five levels: 0€, 2.5€, 5€, 7.5€, 10€. The cooperation rate of the trustee was the proportion of money returned to the trustor, which also consisted of the five levels: 0%, 25%, 50%, 75%, and 100%. In this case, for each possible amount of money the trustor could have sent to the trustee, the trustee had to decide whether to return nothing, 25%, 50%, 75%, or the total amount of the money they received from the trustor, which had been tripled by the experimenter.

The measured variables were on the one hand the participants' decision on how to allocate the money, and on the other hand, the participants' judgments on the dimensions of warmth and competence using items from Rom and Conway (2018). Participants were asked to rate their counterparts on the traits of warmth, i.e. warm, good-natured, sincere, and on the traits of competence, i.e. competent, confident, independent, competitive, and intelligent (Rom &

Conway, 2018). These ratings were made on a 5-point Likert scale (1 being ‘strongly disagree’, 5 being ‘strongly agree’).

Additionally, in the chance condition, both trustors and trustees are informed of the involvement of chance with a reminder that the money they received may not be based on their partner’s choice. Specifically, they were informed that there was only a chance of 20% that the outcome was due to their partner’s choice. This number was chosen to make each of the five possible options, representing the different cooperation rates, equally likely.

Procedure

The participants accessed the survey via an anonymous link. Each participant filled out the informed consent form and read the instructions for the experiment, followed by a control question that tested the participants’ understanding of the game, before starting the experiment.

This study focused on trait inferences in repeated one-shot interactions in the trust game. In the control condition participants’ cooperation were measured by their decision on how to allocate the money between themselves and their counterpart. After viewing the choice of their counterpart, participants were asked to rate them on the dimensions of warmth and competence. These ratings were made after every possible outcome the players could have received, i.e. five times for every possible choice of allocating the money. The ratings captured the inferred traits based on the other’s behavior in the trust game. Participants in the chance condition had the same procedure, with the additional information that the presented outcome may not be based on the partner’s decision.

Results

Descriptive statistics on trustors’ choice behaviors in the trust games can be found in Table 1 and the choices of trustees can be found in Table 2 in the Appendix. The distribution

revealed a tendency to transfer half of the money to the other person, although peaks at the extreme ends were observed. Analyses focused on participants mean warmth and competence ratings on the different cooperation rates they faced in the five trials. First, a repeated-measures ANOVA was run to predict average ratings across the five trials depending on the participant's role (trustor vs. trustee) and the condition (control vs. chance), i.e. a 5 (Trial) x 2 (Player Role) x 2 (Condition) mixed-model RM ANOVA. Mauchly's test indicated that the assumption of sphericity had been violated, $\chi^2(44) = 263.439, p < .001$, therefore, this violation was corrected using Greenhouse-Geisser estimates of sphericity ($\epsilon = .505$). The analysis revealed a significant main effect of Trial, $F(4.544, 336.271) = 48.177, p < .001, \eta_p^2 = .394$. This effect shows that if the role or condition participants were assigned to is ignored, some trials, i.e. different rates of cooperating behavior, were still judged significantly differently. There was a significant main effect of Player Role, $F(1, 74) = 6.376, p = .014, \eta_p^2 = .079$. This effect demonstrates that if all other variables are ignored, Trustors' ratings were significantly different to Trustees', the descriptive statistics revealed that Trustee's mean ratings ($M = 3.416$) were slightly higher than Trustors' ($M = 3.149$). In contrast, there was no significant main effect of Condition, $F(1, 74) = 2.738, p = .102, \eta_p^2 = .036$, indicating that ratings did not differ significantly across conditions if all other variables are ignored. There was a significant interaction between Player Role and Trial, $F(4.544, 336.271) = 2.359, p = .046, \eta_p^2 = .031$. This effect shows that the participants' ratings differed on the trials depending on their role if the condition is ignored. There was no significant interaction between Condition and Trial, $F(4.544, 336.271) = .355, p = .836, \eta_p^2 = .005$. There was also no significant three-way interaction between Trial, Player role, and Condition, $F(4.544, 336.271) = .779, p = .554, \eta_p^2 = .01$.

For further analysis of the simple main effects, the data was split by Player Role and a repeated measures ANOVA was run testing the mean warmth and competence ratings across the five trials, ignoring the condition participants were assigned to. Mauchly's test indicated that the assumption of sphericity had been violated, $\chi^2(44) = 263.439, p < .001$, therefore violation was corrected using Greenhouse-Geisser estimates of sphericity ($\epsilon = .505$). The analysis revealed that Trial had significant effect on trustor's ratings, $F(3.593, 122.161) = 21.102, p < .001, \eta_p^2 = .383$, as well as on trustee's ratings, $F(5.062, 212.593) = 30.729, p < .001, \eta_p^2 = .423$. An overview of the mean warmth and competence ratings across trials can be found in Figure 1 in the Appendix. Bonferroni post-hoc test revealed that trustors rated warmth in the 0% cooperation trial ($M = 1.9, SD = .807$) significantly lower than every other trial ($p < .001$). Warmth in the 25% cooperation trial ($M = 2.486, SD = .757$) was rated significantly lower than warmth in the 50% cooperation ($p < .001$), 75% cooperation ($p < .001$), and 100% cooperation ($p = .001$) trials. It was also rated significantly lower than competence in the 25% ($p < .001$), 50% ($p = .001$), 75% ($p = .002$) cooperation trials. Competence in the 0% cooperation trial ($M = 3.337, SD = .74$) was rated significantly higher than warmth in the 25% cooperation trial ($p < .001$). Bonferroni post-hoc test revealed that trustees rated warmth in the 0% cooperation trial ($M = 2.11, SD = .873$) significantly lower than every other trial ($p < .001$). Warmth in the 25% cooperation trial ($M = 3.267, SD = .925$) was rated significantly lower than warmth in the 50% cooperation ($p = .02$), and 75% cooperation ($p = .002$) trials. Warmth in the 100% cooperation trial ($M = 4.116, SD = .741$) was rated significantly higher than every other rating, i.e. warmth in 25% ($p < .001$), 50% ($p = .001$) and 75% ($p = .015$) cooperation trials, as well as, competence in 0% ($p = .001$), 25% ($p < .001$), 50% ($p < .001$), 75% ($p = .002$), and 100% ($p = .004$) cooperation trials. Competence in the 25% cooperation trial ($M = 3.316, SD = .651$) was rated significantly lower than warmth in

the 50% ($p = .015$), 75% ($p = .002$), and 100% cooperation trials. Lastly, competence in the 50% cooperation trial ($M = 3.363$, $SD = .594$) was rated significantly lower than warmth in the 75% ($p = .004$) and 100% cooperation trials.

A confirmatory factor analysis was conducted using the software R for all items that were rated to assess warmth and competence. All the loadings proved significant with a $p < .001$ (see Table 3 in the Appendix). The Chi-square test ($\chi^2(26) = 83.485$, $p < .001$) and RMSEA ($= .168$) indicated a bad model fit. Reliability analysis was carried out on the items measuring warmth and competence at the different trials. Cronbach's alpha showed acceptable reliability at the 0% cooperation trial, $\alpha = .785$, at the 25% cooperation trial, $\alpha = .827$, at the 50% cooperation trial, $\alpha = .861$, at the 75% cooperation trial, $\alpha = .813$, and at 100% cooperation trial, $\alpha = .827$. Removal of any item except item 8 ("competitive"), would result in lower Cronbach's alpha. The removal of item 8 would lead to a small improvement in Cronbach's alpha to $\alpha = .803$, $\alpha = .875$, $\alpha = .894$, $\alpha = .860$, $\alpha = .856$, across the five trials respectively. As such, the removal of this item should be considered.

Discussion

This article aims to investigate the relationship between trait inferences and social interactions, in the form of trait impressions of partners with different cooperating behaviors in the trust game. The results confirmed the expectation that more cooperative partners are associated with more warmth. We see that partners with more cooperative behavior are rated significantly higher on warmth than on competence, and most importantly, with increasing cooperation the partners are rated significantly higher on warmth. At the same time, at lower levels of cooperation partners are rated significantly higher on competence than on warmth. These ratings are in line with stereotyped impressions that people who compete for resources in

their favor are seen as more competent and less warm, whereas people that demonstrate an inclination to share with others are seen as warmer and less competent (Cuddy et al., 2008). These findings support our hypothesis that differences in cooperating behavior lead to different impressions of the person. Moreover, the findings of this study demonstrate that participants can infer traits of others just based on how they decide to share money, indicating how easily impressions of others are formed.

Interestingly, the trait impressions differed between trustors and trustees, such that trustees rated the trustors overall higher on warmth and competence. A possible explanation for this is the fact that only trustors received an endowment at the beginning of the trust game, making trustees dependent on the trustor. This dependency might have led to a more positive view of the trustor when trustees received a share of their money. Based on a lack of empirical evidence, this remains a speculation.

Contrary to expectation, including uncertainty in the game still led to significantly different impressions of the partner. It was predicted that competence and warmth ratings of the partner should not differ across the different cooperation rates since there was no certainty that the observed behavior was based on the partner's choice. Yet, the results show that in the chance condition the ratings did not differ significantly from the control condition, indicating that the ratings of the partner followed a similar pattern. There are several possible explanations for this. Cox and Deck (2006) argue that participants simply give their partners the benefit of doubt by acting as though their partner intended to make that choice. This finding might also reflect the core of trust as explained by Frederiksen (2014), who argues that trust makes it possible to overcome uncertainty and to establish positive expectations of the future. Thus, the same trust that leads participants to share their money with a stranger in the first place, may also contribute

to the same behavior in the face of uncertainty about the source of money. This is possible to the extent that participants already face uncertainty when sharing their money with a partner because they do not know how much money they will receive in return. Adding uncertainty about the source of the money that is returned, i.e. whether it was their partner's choice or due to chance, may not elevate the risk the participants take when sharing their money or diminish the positive expectation of their trust. According to this, it can be concluded that the manipulation of certainty about the source of the observed behavior makes no difference in a situation that requires trust. However, another interesting perspective to take into account is that of Van Overwalle, Drenth, and Marsman (1999) who argue that trait inferences are spontaneously associated with the observed behavior, but not necessarily associated with the actor. Seeing as the only knowledge participants have of their partner in both conditions is their behavior in terms of the allocation of money, the ratings for these behaviors may be similar across conditions. This would indicate that participants mainly judge the rate of cooperation and not necessarily their partner. Yet, research on trait attribution to the behavior or actor presents mixed results with no clear difference in the underlying process leading to each type of attribution (Uleman et al., 1996; Van Overwalle et al., 1999). Overall, the fact that participants continue to make judgments in the face of uncertainty speaks to the automatic nature of trait inferences (Lee & Harris, 2013).

The inclusion of uncertainty in the trust game raises more questions than answers. Are these findings simply in line with the fundamental attribution error and participants neglect the situational factors (i.e. chance) when judging the observed behavior? Or is uncertainty all together not taken into account when trust is required? Are trait inferences associated with the action or with the actor when we only observe the action of an actor? These questions are interesting starting points for follow up research on the dynamics of trust and uncertainty, as well

as, on trait inferences based on observed actions. Another aspect to be looked into is the difference between trustors and trustees. Our results indicate that trustees rate the trustors higher, yet, the explanation for this observation remains just speculation, based on a lack of research into the differences in decision making and judgments of trustors and trustees. Future studies could investigate this difference by manipulating the endowments trustors and trustees receive and by comparing the judgments of the partner afterward.

One major limitation of this study is the bad model fit of the items measuring warmth and competence according to confirmatory factor analysis. Here, CFA was used prematurely, since this scale was not tested in the context of a trust game before. Taking the acceptable reliability analyses into account, it is argued that the consequence of this bad model fit is of questionable importance, although the deletion of the item measuring competitiveness should be considered in the future. Another limitation to consider is the fact that the sample size as required by the power analysis was not reached at the end of data collection. Although statistical effects are observed in the sample, the small sample size might be another explanation for the observed bad model fit. Therefore, it is suggested to replicate this study with a much larger sample for a more precise understanding of the traits that belong to warmth and competence. Next, it needs to be considered that this sample consists mainly of young students because it has been shown that these populations generally share less money in the trust game (Johnson & Mislin, 2011). However, looking at the results this does not seem to be a major restriction of generalizability, as there is considerable variation within the frequency of the allocated money, and consistent with previous findings this sample shows a tendency to allocate on average half of their money to their partner (Cox & Deck, 2006). Also, empirical findings demonstrate that when participants are informed of random payment, they tend to send less

money to their partners (Johnson & Mislin, 2011). However, since the allocation of money was not of primary interest in this research, not too much attention is paid to this observation.

The analysis of trait inferences based on repeated one-shot interactions in the trust game in which participants face different cooperating behaviors of their partners reveals that more cooperative partners are judged to be warmer and less cooperating partners are judged to be more competitive. This finding remains even in the face of uncertainty about the observed cooperation of their partner. Overall, this article highlights how easily traits are inferred based on minimal information and that certainty of this information is not required to make judgments.

References

- Berg, J., Dickhaut, J., & McCabe, K. (1995). Trust, reciprocity, and social history. *Games and economic behavior*, 10, 122-142. <https://doi.org/10.1006/game.1995.1027>
- Cox, J. C., & Deck, C. A. (2006). Assigning intentions when actions are unobservable: The impact of trembling in the trust game. *Southern Economic Journal*, 73, 307-314.
DOI:10.2307/20111893
- Cuddy, A. J. C., Fiske, S. T., & Glick, P. (2008). Warmth and competence as universal dimensions of social perception: The stereotype content model and the BIAS map. *Advances in experimental social psychology* (Vol. 40, pp. 61-149).
[https://doi.org/10.1016/S0065-2601\(07\)00002-0](https://doi.org/10.1016/S0065-2601(07)00002-0)
- Frederiksen, M. (2014). Trust in the face of uncertainty: A qualitative study of intersubjective trust and risk. *International Review of Sociology*, 24, 130-144.
DOI:10.1080/03906701.2014.894335
- Harris, L., Lee, V. K., Thompson, E. H., & Kranton, R. (2016). Exploring the generalization process from past behavior to predicting future behavior. *Journal of Behavioral Decision Making*, 29, 419-436. DOI:10.1002/bdm.1889
- Jenkins, A. C., Karashchuk, P., Zhu, L., & Hsu, M. (2018). Predicting human behavior toward members of different social groups. *Proceedings of the National Academy of Sciences*, 115, 9696-9701. DOI:10.1073/pnas.1719452115
- Johnson, N. D., & Mislin, A. A. (2011). Trust games: A meta-analysis. *Journal of Economic Psychology*, 32, 865-889. DOI:10.1016/j.joep.2011.05.007

- Judd, C. M., James-Hawkins, L., Yzerbyt, V., & Kashima, Y. (2005). Fundamental dimensions of social judgment: Understanding the relations between judgments of competence and warmth. *Journal of Personality and Social Psychology*, 89, 899-913.
DOI:10.1037/0022-3514.89.6.899
- Lee, V. K., & Harris, L. T. (2013). How social cognition can inform social decision making. *Frontiers in Neuroscience*, 7, 259-271. DOI:10.3389/fnins.2013.00259
- McCabe, K. A., Rigdon, M. L., & Smith, V. L. (2003). Positive reciprocity and intentions in trust games. *Journal of Economic Behavior & Organization*, 52, 267-275.
DOI:10.1016/S0167-2681(03)00003-9
- Pillutla, M. M., Malhotra, D., & Murnighan, J. K. (2003). Attributions of trust and the calculus of reciprocity. *Journal of Experimental Social Psychology*, 39, 448-455.
DOI:10.1016/S0022-1031(03)00015-5
- Rom, S. C., & Conway, P. (2018). The strategic moral self: Self-presentation shapes moral dilemma judgments. *Journal of Experimental Social Psychology*, 74, 24-37.
DOI:10.1016/j.jesp.2017.08.003
- Thielmann, I., Spadaro, G., & Balliet, D. (2020). Personality and prosocial behavior: A theoretical framework and meta-analysis. *Psychological Bulletin*, 146, 30-90.
DOI:10.1037/bul0000217
- Todd, A. R., Molden, D. C., Ham, J., & Vonk, R. (2011). The automatic and co-occurring activation of multiple social inferences. *Journal of Experimental Social Psychology*, 47, 37-49. DOI:10.1016/j.jesp.2010.08.006
- Uleman, J. S., Newman, L. S., & Moskowitz, G. B. (1996). People as flexible interpreters: Evidence and issues from spontaneous trait inferences. In M. P. Zanna (Ed.), *Advances in*

Experimental Social Psychology (Vol. 28, pp. 211-279). Academic Press.

DOI:10.1016/S0065-2601(08)60239-7

Van Overwalle, F., Drenth, T., & Marsman, G. (1999). Spontaneous trait inferences: Are they linked to the actor or to the action? *Personality and Social Psychological Bulletin*, 25, 450-462. DOI:10.1177/0146167299025004005

Appendix

Table 1

Participants' decisions as Player 1 in the Trust Game

Amount €	N= 35
	Trustor's choice
30	11 (31.4%)
22.5	4 (11.4%)
15	15 (42.9%)
7.5	5 (14.3%)
0	0
Mean	15€

Table 2

Participant's decisions as Player 2 in the Trust Game

Amount € received	N= 43 Trustee's choice for return					M in €
	0%	25%	50%	75%	100%	
30	1 (2.3%)	9 (20.9%)	25 (58.2%)	3 (7%)	5 (11.6%)	15
22.5	2 (4.7%)	9 (20.9%)	26 (60.5%)	3 (7%)	3 (7%)	11,25
15	1 (2.3%)	21 (51.1%)	12 (27.9%)	3 (7%)	5 (11.6%)	7,5
7.5	15 (34.9%)	6 (14%)	13 (30.3%)	1 (2.3%)	8 (18.7%)	3,75

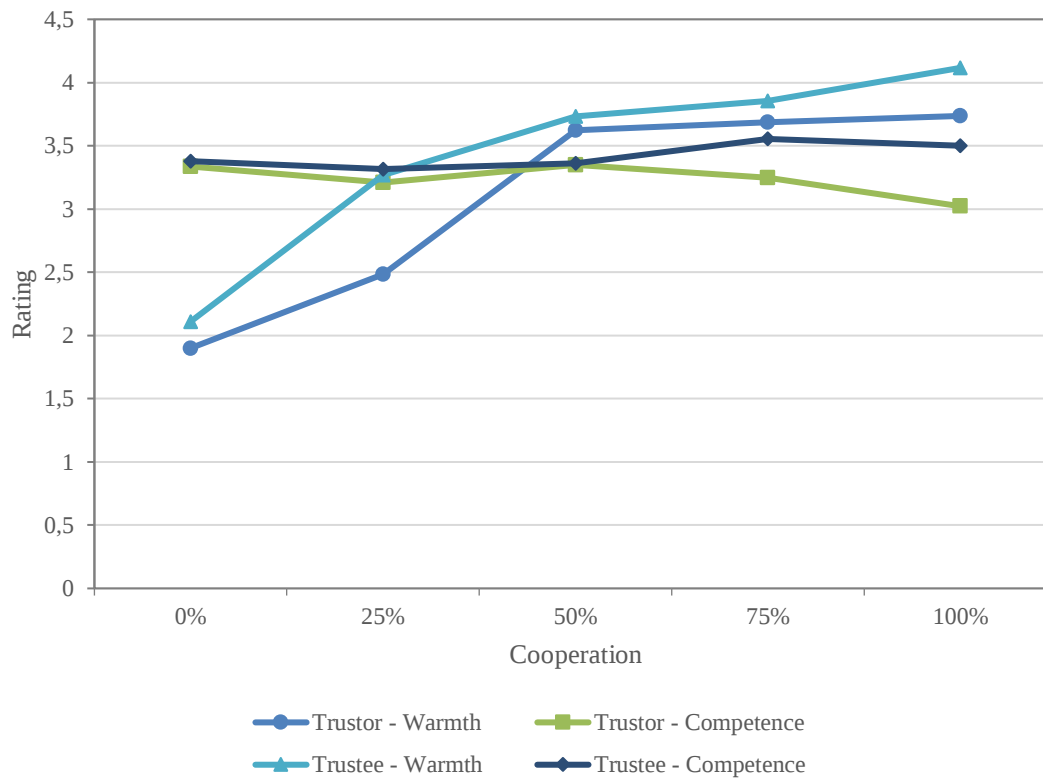


Figure 1. Participants' average ratings of their counterparts on the dimensions of warmth and competence in the different cooperation rates they faced in the five trials of the trust game.

Table 3

Standardized loadings for individual items on the warmth and competence factors derived from confirmatory factor analysis.

	Warmth	Competence
Tolerant	.879	-
Warm	.950	-
Sincere	.879	-
Good	.878	-
Competent	-	.815
Confident	-	.869
Independent	-	.822
Competitive	-	.485
Intelligent	-	.638