



DP2022-03

Revisiting the Effect of Trustworthy Face and Attractive Appearance on Trust and Trustworthiness Behavior

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> March 1, 2022



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# Revisiting the effect of trustworthy face and attractive appearance on trust and trustworthiness behavior

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## Abstract

In a trust game experiment with Chinese participants, we investigate the effects of trustworthy faces and attractive appearances on trust and trustworthiness behavior. The participants played the role of trustor and made decisions on how much money to transfer to their paired trustees while looking at the trustees' photos presented on a large screen. After that, the trustees decided how much money to return to their paired trustors. Results indicate that trust decisions are influenced by both a trustworthy face and an attractive appearance. In addition, a gender effect on trust decisions was found. Men are more trusting than women are, regardless of whether their counterparts are male or female. However, females are less likely to trust their male counterparts than female counterparts. Finally, it is observed that the trustees with a more attractive appearance are more likely to betray the trust they have, while this is not the case for those with more trustworthy faces.

Keywords: Trustworthy face; Attractive appearance; Trust behavior; Trustworthiness behavior; Trust game experiment

JEL classification: C72, C91, D63

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#### 1. Introduction

It is widely accepted that trust and social capital are importantly linked. Whether the former is the basis for the latter or vice versa is a matter of debate. Even so, trust is still considered to be an important foundation for political, economic, and social transactions (Putnam 1993, 1995). In addition, trust is thought to be supported by group norms and institutions (Eckel and Wilson, 2003a). In social activities, people routinely make trusting decisions about family and friends, colleagues, lawyers, fund managers, employers, and even strangers; without trust, no one would accept essentially worthless bills and coins (or electronic transfers) in exchange for goods or services, nor would there be promises of work in exchange for later compensation (Alós-Ferrer and Farolfi, 2019).

Many factors such as risk appetite influence the choice of trust in others. The decision to trust others means taking risks of possibly low rewards from their counterparts, so naturally, one's attitude towards risk might influence their willingness to trust. Meanwhile, when taking risks to trust others, we attempt to assess the trustworthiness of their counterparts in various ways to reduce these risks. One of the ways is to use the counterparts' reputation to decide whether to trust, considering not only the feedback about the trust decisions we have made but also what we have learned from others' responses. However, information on one's reputation is not always easy to obtain. This may occur quickest for acquaintances or in cases where one has the time and means to investigate, and even sometimes despite doing as much prior surveying as possible, one still cannot obtain the desired or true information.

In real life, we are often faced with inadequate prior knowledge, which provides us with very limited information to make trust decisions; for example, when faced with the need to make trust decisions about a stranger. In such cases, we have very little information that can be accessed, except for those that can be obtained from the surface (e.g., appearance, gender, ethnicity, expression, etc.). Although not necessarily accurate, we are ignorant of the reputations of their counterparts, which are usually used to make trust judgments. Previous studies have found that gender, ethnicity, and expression affect trust decisions. Scharlemann et al. (2001) found that smiling can inspire trust and positively affect trust among strangers. Eckel and Wilson (2003a) also reached the same conclusion that "smiling brings trust," In another paper by Eckel and Wilson (2003b), they concluded that "members of minority groups are less likely to be trusted than Caucasian counterparts, and African-Americans are least likely to be trusted" by having subjects look at photographs. Scharlemann et al. (2001) also suggested in their article that trust increases when men are paired with women.

In addition to gender, ethnicity, and expression issues, one's appearance itself seems to influence our choices, just as "judging by appearances" does. Mobius and Rosenblat (2006) found a considerable beauty premium in experimental labor markets and suggested that employers

(mistakenly) perceived physically attractive workers to be more competent. Ravina (2019) found that borrowers with above-average beauty appearances were more likely to obtain loans. Furthermore, Rosenblat (2008) conducted an experimental study using a dictator game with the addition of influences such as pre-recorded voices and photographs of participants. It was found that physically attractive players gained a greater share of the surplus when paired with their partners who could both hear their voices and see their pictures. This effect was strongest when the partner who heard the voice was a female.

Focusing on the effect of one's appearance on trust, Wilson and Eckel (2006) examined the mechanisms by which a person trusts a stranger. Using controlled information about the opponent in a laboratory setting, this study tested whether attractive participants received a "beauty premium" in games involving trust and reciprocity. The authors found that attractive trustees were perceived as more trustworthy, had a higher rate of trust, and therefore received a higher transfer in the first stage of the game. However, attractive trustors received a "beauty penalty" in the second stage of the game. Attractive trustors were not guaranteed higher returns. This penalty arises because the attractive trustor failed to meet the trustee's expectations, and it was greater when the disappointed trustor was attractive. If expectations are not met, trustees withhold returns. There are also studies that have focused on the effects of both appearance characteristics and reputation on trust. Yu et al. (2014) used a repeated trust game to investigate how first impressions<sup>1</sup> and experiences<sup>2</sup> influenced trust propensity. In the early rounds of the repeated game, trustees with trustworthy facial appearances were sent significantly more points by trustors, and this was not related to their reciprocity. However, in the later rounds of the game, trustees who reciprocated were sent significantly more points by trustors, and this was not related to their facial appearance. Thus, it was concluded that the effect of partners' appearance on trust-related behaviors diminished with increasing experience. Li et al. (2017) conducted a one-shot standard trust game experiment in China to investigate the interactive effects of facial appearance and reputation based on past behavior on trust beliefs and trust behaviors. By displaying facial and behavioral information to the participants sequentially, they found that while facial information could affect perceived trustworthiness when shown either before or after behavioral information, behavioral information influenced perceived trustworthiness only when they were displayed first.

In the current study, we aim to investigate the effect of trustworthy faces and attractive appearances on trust and trustworthiness behavior in China. While our purpose seems to be similar to that of Li et al. (2017), our study differs in two respects. First, in their experimental design, trustors could see their paired counterparts' pictures and others' evaluations of them when making

<sup>&</sup>lt;sup>1</sup> First impressions refer to the snap judgments made regarding a person's trustworthiness based upon their facial appearance.

<sup>&</sup>lt;sup>2</sup> Experience refers to repeated interactions with a partner, including feedback on whether the partner tends to reciprocate or betray trust.

decisions simultaneously; therefore, trustors' subjective face-based judgement might be influenced by these evaluations. Our design rules out this possibility by presenting pictures of trustees to trustors without any other information. Second, in the experiment by Li et al. (2017), the pictures presented to the trustors were not those of the trustees; therefore, the effect of facial appearance on trustees' behavior could not be observed. In our experiment, we presented photos of trustees who participated in the experiment to trustors. This manipulation allowed us to investigate how trustworthy faces and attractive appearance affects trustees' trustworthiness behavior, which has seldom been examined in the literature.

The remainder of this paper is organized as follows. Section 2 describes the details of the experiment. The experimental results are presented in Section 3. Finally, Section 4 discusses the results and suggests several possible directions for future studies.

# 2. Experimental design

#### 2.1 The measurement of trust and trustworthiness

The first problem we face is measuring the abstract attitude of trust and trustworthiness. In 1995, Berg, Dickhaut, and McCabe proposed and published an experimental approach to distill trust through specific game rules, which became well-known as the trust game<sup>3</sup> or investment game. The details of the experimental approach are as follows.

In the experiment, all participants were divided into two roles: role A makes an investment decision in the experiment called "trustor" and role B makes a return decision called "trustee." The experiment implementer first pays the trustor a certain amount of money (*x*) and asks the trustor to decide how much of it (*y*) to transfer to the trustee, which can be 0 or all of *x* (i.e.,  $y \in [0, x]$ ).<sup>4</sup> Then, the experiment implementer multiplies the money *y* by three times before transferring to the trustee, so that the trustee gets 3*y*. Finally, the trustee decides how much of it (*z*) to return back to the trustor, which can be 0 or all of 3*y* (i.e.,  $z \in [0, 3y]$ ). At this point, the experiment is complete, and the trustor and trustee gain x - y + z and 3y - z, respectively.

In the pursuit of profit, the trustee will not return any amount of money, and the trustor knows that the trustee will not have any return, so they will not give away any amount of money. That is, for a rational person seeking to maximize their own profit, the choice of the game is clear: the

<sup>&</sup>lt;sup>3</sup> The term Trust Game was used earlier in Kreps (1990). In this paper, it is used to refer to a simpler game: the trustor has a two-way choice of trusting or not trusting the trustee, and if the trustor does not choose to trust, both participants are rewarded with \$0. If trustor decides to trust, trustee is faced with the choice to respect or abuse (i.e., the trustee chooses to accept that each player will receive an equal return of \$10 or the trustee chooses to abuse the proven trust, resulting in a return of \$15 for the untrustworthy trustee and a negative return of -\$5 for trustor). However, Trust Game is now more commonly thought of as a proxy for the game described in the text.

<sup>&</sup>lt;sup>4</sup> Note that in many studies following the approach of Berg et al. (1995), the authors adjusted it by paying both trustor and trustee a same amount of money initially for avoiding possible endowment effect on trust and trustworthiness. This approach is currently most commonly used and we also apply it in our experiment.

trustor chooses to transfer y = 0 and the trustee chooses to return z = 0. However, the actual game experiment is completely different. The trustor gives away a certain amount of money, and the trustee returns a certain amount of money. Moreover, there is a significant positive correlation between the number of transfers and returns. This is significantly different from the theoretical prediction and is due to the existence of the amount times three rule, where both participants are likely to be better off if the trustor invests (if he or she trusts the trustee) and the trustee returns a larger amount than y (if he or she is trustworthy). Thus, the amount y, or the ratio of y to x, can be considered as the measure of the trustor's trust behavior, and the amount z, or the ratio of z to 3y, can be considered as the trustee's trustworthiness behavior.

#### 2.2 Experimental issues

We conducted the experiment at the Shanghai Lixin University of Accounting and Finance on June 5-6, 2021. A total of 120 students (fifty-six males and sixty-four females; mean age: 20.11 years, standard deviation: 1.01 years) participated in the experiment. Since this was the first economic experiment conducted at the university, none of the subjects had prior experience in joining an experiment as such. There were six sessions with 20 participants each. Each session consisted of three rounds. Each subject was assigned to be either a trustor (role A in the experiment) or a trustee (role B in the experiment) for all three rounds of a given session during recruitment. After being successfully recruited, subjects with trustee roles were required to submit an electronic photo<sup>5</sup> of themselves and to sign a consent form related to letting us use their photos only in the experiment. To ensure that the trustors and trustees in the trust game were strangers to each other, we recruited them separately according to their roles in the experiment, with trustors from the Faculty of International Business and Economics (thirty males and thirty females; mean age: 19.92 years, standard deviation: 0.98 years) and trustees from the Faculty of Statistics and Mathematics (twenty-six males and thirty-four females; mean age: 20.30 years, standard deviation: 1.01 years). We also added a question to the post-experimental questionnaire to address this issue.<sup>6</sup> In addition, to maintain anonymity between trustors and trustees, they were arranged in different classrooms when they arrived and remained there during the experiment. In each classroom, the subjects received written instructions<sup>7</sup>, a recording sheet, and a transfer-amount

<sup>&</sup>lt;sup>5</sup> Based on the result of Scharlemann et al. (2001) that smiling influences trust decisions, we provided some specific requirements on the photos (e.g., facial expression, size, and background, etc.) to the trustees for the sake of excluding possible effects caused by different photos. The detailed requirements are provided in Appendix A.

<sup>&</sup>lt;sup>6</sup> The questions in the questionnaire include: "Do you know any of the people among the photos shown to you in the second-round experiment?" (for the trustors) and "Is there anyone you know among the people in role A in the experiment?" (for the trustees). Only one trustor (i.e., 1.67% of the trustors) and three trustees (i.e., 5% of the trustees) answered "Yes," indicating that a majority of the trustors and trustees were strangers.

<sup>&</sup>lt;sup>7</sup> The experimental instruction for the second-round (resp. the third-round) experiment was distributed after

recording sheet. One of the native Chinese experimenters in each classroom read the instructions aloud to ensure that they were understood by all.

In each session, when the subjects arrived in the classroom, they were informed that they would participate in an experiment consisting of three rounds. In the first round, a one-shot standard trust game experiment was conducted. Ten trustors were randomly paired with ten trustees. Each trustor and trustee was endowed with 20 RMB (about 3.2 USD, using 1 RMB=0.16 USD). The detailed procedure of the first-round experiment is as follows.

- Step 1. The trustors in one classroom were asked to decide on the amount to be transferred to their counterparts (i.e., the paired trustees) and to write it on the transfer amount recording sheets.
- Step 2. The experimenters collected the trustor's transfer amount recording sheets, went to the trustee's classroom, and wrote the tripled amount of each trustor's transfer on the recording sheets of the corresponding trustees.
- Step 3. After learning of the trustor transfer, the trustees decided how much to give back to their counterparts (i.e., the paired trustors) and wrote the amount on the transfer amount recording sheets.
- *Step 4.* The experimenters collected the trustees' transfer amount recording sheets, went to the trustor's classroom, and recorded the return amount of each trustee on the recording sheets of the corresponding trustors.
- Step 5. After all of the subjects calculated their own payoffs (i.e., the amount that remained at each subject's hand) and filled in their recording sheets, the first-round experiment was completed.

The basic procedure of the second-round experiment was almost the same as that of the firstround experiment, except for the following two issues. First, before the trustors made their decisions in *Step 1*, photos of the ten trustees in another classroom were randomly projected on the screen one by one. Each photo would remain there until all the trustors made their decisions and wrote the transfer amounts on their transfer amount recording sheets.<sup>8</sup> This means that each trustor would make ten decisions regarding the transfer amount by seeing all of the counterparts' faces. Second, the number of decisions made by each trustee in *Step 3* was also ten, because each trustee received a tripled amount of transfer from all the trustors. Again, the experimenters were in charge of writing the tripled amounts of transfer on the trustees' recording sheets and the return

the first-round (resp. the second-round) experiment finished. The instructions for the trustors and trustees are provided in Appendices B and C, respectively.

<sup>&</sup>lt;sup>8</sup> There were ten blanks in the transfer amount recording sheet in the second-round experiment.

amounts on the trustor recording sheets.

The third-round experiment was also a one-shot standard trust game, which was identical to the first-round experiment except that the pairs of trustors and trustees were randomly matched once again. Both the first- and third-round experiments served as the base treatments in our within-subjects design. The purpose for which we included a base treatment at the beginning and one at the end of the experiments was to eliminate the possible order effect of the base treatment (Moffat, 2015) and to examine subjects' possible behavioral changes after experiencing the photo treatment (i.e., the second-round experiment).

After the third round, all subjects were asked to answer a post-experimental questionnaire, which included questions related to basic individual information (e.g., gender, age, major, hometown, monthly living expense, and frequency of studying economics), the question of evaluating subjects' risk preferences, the question of whether the subjects knew their counterparts, and the widely used General Social Survey (GSS) questions about trust, helpfulness, and fairness.<sup>9</sup> The question for evaluating subjects' risk preferences was borrowed from Hsee and Weber (1997). In addition, the trustors were asked to evaluate twenty AI-synthesized photos<sup>10</sup> that were randomly presented on the screen in the trustors' classroom. The purpose of this evaluation and the details of these photographs are described in the next subsection.

Communication was prohibited during the experiment, with subjects understanding that the experiment would be terminated immediately if they communicated with one another. There was no show up fee in our experiment. The total rewards for each subject were the sum of the payoffs based on four decisions: one in the first round, two randomly selected from the ten decisions in the second round, and the fourth from the third round. Each session of the experiment lasted for approximately one hour, and subjects earned, on average, 121.32 RMB (about 19.41 USD, using 1 RMB=0.16 USD).

## 2.3 Evaluation of photos

Our aim was to investigate the effect of a trustworthy face and an attractive appearance on trust and trustworthiness behavior. Hence, judging one's face as trustworthy and/or attractive was a key element in this study. To ensure that the judgement was not made by those who might know the trustees who provided the photos, we recruited eight students (four males and four females) as evaluators from another university, Shanghai Customs College. The photos that these evaluators were asked to evaluate included sixty photos of trustees and twenty AI-synthesized ones. For each photo, the evaluators answered the following four questions using an 11-point

<sup>&</sup>lt;sup>9</sup> The post-experimental questionnaires for trustors and trustees are provided in Appendices D and E, respectively.

<sup>&</sup>lt;sup>10</sup> The photos were generated on the website of GENERATED PHOTOS https://generated.photos/

Likert scale:

- Q1. Does he/she look good?
- Q2. Do you think he/she looks good in public opinion?
- Q3. Do you think he/she looks trustworthy?
- Q4. Do you think he/she looks trustworthy in public opinion?

In the above questions, Q1 and Q2 were related to attractive appearance, and Q3 and Q4 were related to trustworthy faces. The evaluation procedure is as follows. When the evaluators arrived in the classroom, they were informed of the rules of the photo evaluation and that they would have the opportunity to revise their evaluation at some point later on in the experiment. Eighty photos were randomly projected on a similarly-sized screen as that used in our trust game experiment, and each photo would remain there until all the evaluators had finished the evaluation. After the 80 photos were evaluated, they were projected once again in the same order. The evaluators were able to revise their scores at the time. It should be noted that communication among the evaluators was not allowed during the evaluation process. Finally, each evaluator was paid an equal amount of 100 RMB.

Regarding the twenty AI-synthesized photos, we selected the options of face-natural, head pose-frontal, age-young, race-Asian, and emotion-neutral on the website of GENERATED PHOTO. After that, we manually selected ten photos of each gender that were most closely related to a Chinese face and used Photoshop to adjust the photos to match our photo requirements. In addition, it should be noted that these AI-synthesized photos were also evaluated by the trustors in the post-experimental questionnaire. Thus, we could check whether the subjects and evaluators shared the same evaluation criteria.

## 3. Results

## 3.1 Photo evaluation criteria

A two-sided *t-test* was used to investigate whether the subjects and evaluators had the same evaluation criteria by using the scores of the above-mentioned four questions for the twenty AI-synthesized photos. The *p-values* of the test presented in Table 1 indicate that the null hypothesis of the mean evaluation scores being the same between the subjects and the evaluators cannot be rejected in 80% of photos for Q1, 75% of photos for Q2, 90% of photos for Q3, and 95% of photos for Q4, based on a significance level of 10%. This evidence implies that there is no problem in using the evaluators' scores for the trustees' photos instead of asking the trustors to evaluate the

trustees' photos directly.11

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	Q1	Q2	Q3	<i>Q4</i>
AI_photo1	0.031**	0.285	0.344	0.709
AI_photo2	$0.004^{***}$	0.006***	0.748	0.724
AI_photo3	0.366	0.660	0.737	0.453
AI_photo4	0.778	0.630	0.042**	0.729
AI_photo5	0.933	0.232	0.475	0.299
AI_photo6	0.277	0.186	0.304	0.525
AI_photo7	0.661	0.944	0.515	0.599
AI_ photo8	0.282	0.372	0.743	0.885
AI_ photo9	0.479	0.797	0.770	0.563
AI_photo10	0.193	$0.094^{*}$	0.944	0.779
AI_photo11	0.861	0.434	0.690	0.659
AI_photo12	0.031**	0.010**	0.518	0.637
AI_photo13	0.447	0.894	0.167	$0.065^{*}$
AI_photo14	0.954	0.987	0.814	0.852
AI_photo15	0.617	0.718	0.898	0.674
AI_photo16	0.913	0.624	0.990	0.964
AI_photo17	0.136	0.122	$0.059^{*}$	0.115
AI_photo18	$0.066^{*}$	0.023**	0.379	0.171
AI_photo19	0.227	0.073*	0.101	0.532
AI_photo20	0.979	0.305	0.360	0.334

Table 1. Two-sided *t-test* results comparing the scores for AI-synthesized photos between the subjects and the evaluators

Notes: The figures are *p*-values of the two-sided *t*-test. \*\*\*, \*\*, and \* indicate statistical significance at the 1%, 5%, and 10% levels of confidence, respectively.

# 3.2 Descriptive evidence

Table 2 presents the descriptive statistics of the participants' experimental performance and basic individual information. Regarding the male-to-female ratio, we have a good balance among trustors and slightly more females than males among trustees. All the ratios of providing answers in a positive sense in the GSS questions regarding trust, helpfulness, and fairness were above 50%, suggesting that, in general, our subjects were relatively more optimistic in these social preferences.<sup>12</sup> *Risk\_appetite* represents the participants' risk preferences, which is the number of

<sup>&</sup>lt;sup>11</sup> It might cause an ethical issue if we ask the trustors to evaluate the trustees' photos directly, because both trustors and trustees were from the same university.

<sup>&</sup>lt;sup>12</sup> GSS\_trust is defined as 1 if "most people can be trusted" was chosen as the answer to the survey question

participants choosing option B in Q11 of the post-experimental questionnaire provided in Appendices D and E. The more option B is chosen, the more risk-seeking acts there are. Compared with the possible maximum number of Bs (i.e., 7), the low values of the means (i.e., 2.30 for trustors and 1.75 for trustees) indicate that our subjects are relatively more inclined to be risk-averse.<sup>13</sup> *Economics\_knowledge* is a 5-point Likert scale measure of the frequency of studying economics, where 1 stands for NEVER and 5 means ALWAYS.

		Trustor		Tr	ustee
		Mean	SD	Mean	SD
First-round	Rate_transfer	0.57	0.306		
	Rate_return			0.32	0.199
Second-round	Rate_transfer	0.50	0.330		
	Rate_return			0.27	0.206
Third-round	Rate_transfer	0.51	0.335		
	Rate_return			0.23	0.221
Photo evaluation	Q1			5.10	0.950
	Q2			5.35	0.966
	Q3			5.71	0.798
	<i>Q4</i>			5.78	0.842
Demographic variables	Male	0.50	0.500	0.43	0.496
	GSS_trust	0.70	0.459	0.55	0.498
	GSS_fairness	0.67	0.472	0.70	0.459
	GSS_helpfulness	0.63	0.482	0.73	0.443
	Risk_appetite	2.30	1.564	1.75	1.651
	Economics_knowledge	3.07	0.854	2.68	0.719

#### **Table 2. Descriptive statistics**

<sup>&</sup>quot;Generally speaking, would you say that most people can be trusted or that you need to be very careful in dealing with people?" and 0 otherwise. *GSS\_fairness* is defined as 1 if "most people would try to be fair" was chosen as the answer to the survey question "Do you think most people would try to take advantage of you if they got a chance, or would they try to be fair?" and 0 otherwise. *GSS\_helpness* is defined as 1 if "most of the time people try to be helpful" was chosen as the answer to the survey question "Would you say that most of the time people try to be helpful, or that they are mostly just looking out for themselves?" and 0 otherwise.

<sup>&</sup>lt;sup>13</sup> The consistent response includes either choosing option A or option B for all seven choices, or switching a choice from option B to option A only once during one of the seven choices. The answers of one trustor and one trustee did not meet the criteria of consistency. Therefore, the data of these two subjects were excluded in the following regression analysis.

With respect to trustor behavior, on average, they transferred 57%, 50%, and 51% of their endowments to the trustees in the first, second, and third rounds, respectively (see *Rate\_transfer* in Table 2). It seems that, after experiencing the second-round experiment (i.e., the round that makes decisions when seeing the counterparts' faces), the trustors transferred less in the second base treatment (i.e., the third-round experiment) than in the first one (i.e., the first-round experiment); however, this difference was not statistically significant (p=0.3011, two-sided *t-test*). Regarding the trustees' behavior, on average, they returned 32%, 27%, and 23% of the sum of their endowments and tripled transfer amounts in the first, second, and third rounds, respectively (see *Rate\_return* in Table 2). After the second-round experiment, trustees returned less in the second base treatment than in the first one, and this difference was statistically significant (p=0.0214, two-sided *t-test*).

# 3.3 Regression analysis of trustors' transfer behavior

Tables 3-1 and 3-2 list the regression results of the Tobit model. The dependent variable in these models was the rate of trust transfer in the second-round experiment. In Table 3.1, besides the photo evaluation and demographic variables presented in Table 2, two variables were included as independent variables in regression models 1-4. One is *Same\_gender*, which is defined as 1 if the trustor and his/her counterpart are of the same gender, and 0 otherwise. The second is *Rate\_return\_R1*, which is the rate of return of the paired trustee in the first-round experiment. In Table 3-2, we investigate the gender effect on trustor transfer at a deeper level by replacing *Male* and *Same\_gender* in models 1-4 with *Male\_Female*, *Male\_Male*, and *Female\_Male* in Models 5-8. *Male\_Female* and *Male\_Male* represent situations in which male trustors were paired with female and male trustees, respectively. Similarly, *Female\_Male* means that the counterparts of female trustors were male, while female trustors paired with female trustees (i.e., *Female Female*) served as a base for comparison.

All variables related to the photo evaluation scores were positively significant. Recall that Q1 and Q2 represent attractive appearances, and Q3 and Q4 denote trustworthy faces, which provides evidence that both the attractive appearance and trustworthy face of the counterparts can positively affect the trustor's trust behavior. In other words, apart from the beauty premium in the common sense, our subjects also formed a trustworthy face premium based on their subjective judgments from the photos. The answers on the question "What factors did you consider when making the relevant decisions in the experiment?" in the post-experimental questionnaire indicate that forty-three trustors (i.e., about 72% of the total) chose "whether the other party looks good or not" and fifty-three trustors (i.e., about 88% of the total) chose "whether the other party looks trustworthy or not," which strengthens the above evidence to some extent.

	Model 1	Model 2	Model 3	Model 4
Q1	0.055***			
	(0.018)			
Q2		0.055***		
		(0.016)		
Q3			$0.047^{**}$	
			(0.021)	
Q4				0.046**
				(0.022)
Male	0.292***	0.293***	0.293***	0.293***
	(0.088)	(0.088)	(0.089)	(0.089)
Same_gender	0.071***	0.071***	0.072***	0.072***
	(0.027)	(0.027)	(0.027)	(0.027)
GSS_trust	0.052	0.050	0.054	0.053
	(0.099)	(0.099)	(0.099)	(0.098)
GSS_fairness	0.107	0.108	0.110	0.111
	(0.096)	(0.096)	(0.097)	(0.097)
GSS_helpness	0.160	0.161	0.159	0.160
	(0.103)	(0.103)	(0.104)	(0.104)
Risk_appetite	$0.059^{*}$	$0.059^{*}$	$0.059^{*}$	$0.059^{*}$
	(0.032)	(0.032)	(0.032)	(0.032)
Economics_knowledge	-0.052	-0.053	-0.053	-0.053
	(0.065)	(0.065)	(0.065)	(0.065)
Rate_return_R1	0.762***	0.766***	0.760***	0.762***
	(0.236)	(0.236)	(0.235)	(0.234)
Constant	-0.362	-0.380	-0.351	-0.349
	(0.267)	(0.260)	(0.258)	(0.266)
Observations	590	590	590	590

Table 3-1. Tobit regressions for the rate of transfer

Notes: Standard errors clustered by subject are given in parentheses. \*\*\*, \*\*, and \* indicate statistical significance at the 1%, 5%, and 10% levels of confidence, respectively.

	Model 5	Model 6	Model 7	Model 8
<i>Q1</i>	0.064***			
	(0.021)			
<i>Q2</i>		0.062***		
		(0.020)		
<i>Q3</i>			$0.044^{**}$	
			(0.02)	
<i>Q4</i>				$0.045^{*}$
				(0.027)
Male_Female	0.221**	0.222**	0.221**	0.221**
	(0.086)	(0.087)	(0.087)	(0.087)
Male_Male	0.321***	0.315***	0.284***	0.290***
	(0.102)	(0.104)	(0.100)	(0.100)
Female_Male	-0.043	-0.050	-0.081**	-0.074**
	(0.034)	(0.034)	(0.033)	(0.037)
GSS_trust	0.052	0.050	0.054	0.053
	(0.099)	(0.099)	(0.099)	(0.098)
GSS_fairness	0.108	0.109	0.109	0.111
	(0.096)	(0.096)	(0.097)	(0.097)
GSS_helpness	0.159	0.161	0.160	0.160
	(0.103)	(0.103)	(0.104)	(0.104)
Risk_appetite	$0.059^{*}$	$0.059^{*}$	$0.059^{*}$	$0.059^{*}$
	(0.032)	(0.032)	(0.032)	(0.032)
Economics_knowledge	-0.052	-0.053	-0.053	-0.053
	(0.065)	(0.065)	(0.065)	(0.065)
Rate_return_R1	0.765***	0.769***	0.759***	0.762***
	(0.235)	(0.235)	(0.235)	(0.234)
Constant	-0.351	-0.353	-0.258	-0.271
	(0.283)	(0.270)	(0.257)	(0.276)
Observations	500	500	500	500
Observations	590	590	590	590

Table 3-2. Tobit regressions for the rate of transfer

Notes: Standard errors clustered by subject are given in parentheses. \*\*\*, \*\*, and \* indicate statistical significance at the 1%, 5%, and 10% levels of confidence, respectively.

Regarding the gender effect on trustor behavior, males are significantly estimated with a positive sign in Models 1-4, implying that men are more trusting than women are. Although this result is not in line with those of several previous studies that found no gender differences in transfer behavior (e.g., Bohnet et al., 2010; Cox and Deck, 2006; Schwieren and Sutter, 2008), it is consistent with the findings of other studies (Buchan et al., 2008; Chaudhuri and Gangadharan, 2007; Garbarino and Slonim, 2009; Snijders and Keren, 2001; Takahashi et al., 2020). It is interesting to find that trustors send more money to their same-sex counterparts because *Same\_gender* is significant and positive. The results in Table 3-2 clearly establish there to be a gender issue. It is found that compared to *Female\_Female*, male trustors trust their counterparts more without considering gender (see the estimates of *Male\_Female* and *Male\_Male*). However, females seem less likely to trust their male counterparts than their female counterparts because *Female\_Male* is estimated to have a negative sign in Models 5-8 and is significant in Models 7-8.

With respect to the effects of other independent variables, *GSS\_trust*, *GSS\_fairness*, *GSS\_helpfulness*, and *Economics\_knowledge* were not statistically significant in any of the models. *Risk\_appetite* was found to affect trust significantly and positively. In addition, *Rate\_return\_R1* is significantly positive, implying that trust is somewhat conditional on others' past trustworthy behavior.

# 3.4 Regression analysis of trustees' return behavior

Table 4 presents the Tobit regression results. The dependent variable in these models is the trustee return rate in all three rounds.<sup>14</sup> It is interesting to note that Q1 and Q2 are estimated with significantly negative signs. This means that trustees with a more attractive appearance do not generate more generous returns to their counterparts. In other words, it seems that more beautiful or handsome people are more likely to betray the trust they received. However, this is not true for people with more trustworthy faces, because Q3 and Q4 are not significant in Models 3-4. In addition, *Rate\_transfer* was estimated with significantly positive signs in all models, providing evidence that trustees' trustworthiness behavior is based on whether they are trusted.

<sup>&</sup>lt;sup>14</sup> The results of using the data in the second round only is similar to those we list in Table 4.

	Model 1	Model 2	Model 3	Model 4
QI	-0.048**			
	(-0.020)			
Q2		-0.052***		
		(0.020)		
<i>Q3</i>			-0.021	
			(0.034)	
Q4				-0.038
				(0.034)
Male	-0.031	-0.034	0.008	-0.013
	(0.047)	(0.049)	(0.059)	(0.059)
GSS_trust	$0.066^{*}$	0.059	0.057	0.061
	(0.038)	(0.037)	(0.040)	(0.039)
GSS_fairness	-0.023	-0.033	-0.021	-0.016
	(0.060)	(0.058)	(0.060)	(0.060)
GSS_helpness	0.084	$0.089^{*}$	0.078	0.078
	(0.053)	(0.050)	(0.051)	(0.051)
Risk_appetite	0.026	0.029	0.025	0.024
	(0.018)	(0.018)	(0.019)	(0.018)
Economics_knowledge	0.015	0.017	0.012	0.015
	(0.025)	(0.024)	(0.025)	(0.024)
Rate_transfer	0.329***	0.328***	0.325***	0.324***
	(0.026)	(0.026)	(0.026)	(0.027)
Constant	0.179	0.210	0.058	0.152
	(0.141)	(0.146)	(0.227)	(0.232)
Observations	708	708	708	708

Table 4. Tobit regressions for the rate of return

Notes: Standard errors clustered by subject are given in parentheses. \*\*\*, \*\*, and \* indicate statistical significance at the 1%, 5%, and 10% levels of confidence, respectively.

# 4. Discussion and conclusion

This study examined the effect of trustworthy faces and attractive appearances on trust and trustworthiness behaviors in a trust game experiment. Three main results are highlighted. First, although a beauty premium on trust behavior has been confirmed in many previous studies, the issue of whether a trustworthy face has a premium has not yet been widely studied. We found that trustors sent more to their counterparts, when they thought their photos were more trustworthy. Although its robustness needs to be verified by further research, this result is considered to have

important implications for many business fields such as sales and human resource management.

Second, although it has been found in several previous studies that men are more trusting than women are, by further dividing both trustors and trustees according to their gender, we found that men are more trusting than women no matter whether their counterparts are with the same gender; however, women are more trusting when their counterparts are women than when their counterparts are men. This might be plausible because women may feel safer and more willing to trust when their counterparts are also female. Our results exhibit a same-gender effect regarding trust behavior, especially for female trustors. Several previous studies (e.g., Buchan et al., 2008; Eckel and Wilson, 2003a; Friebel et al., 2021; Schwieren and Sutter, 2008; Snijders and Keren, 1999) have investigated whether the same-gender effect exists in trust behavior, they did not find its existence. Therefore, finding the same-gender effect on trust behavior may encourage scholars to check its robustness at a deeper level.

Third, we found that trustees with more attractive appearances do not make generous returns to their counterparts, whereas trustees with more trustworthy faces return to their counterparts indifferently to those who look less trustworthy. This suggests that although both good-looking and trustworthy-looking trustees received more from their paired trustors, the former were more likely to betray the trust they received, but the latter were not. Thus, for trustors, their counterparts' trustworthy faces may be more important than their attractive appearances. This implication could be considered a contribution to the literature in terms of how trustworthy faces and attractive appearances affect trustees' trustworthiness behavior has seldom been examined. This issue needs to be further investigated in the future.

## Acknowledgement

The financial support from the Japanese Ministry of Education, Culture, Sports, Science, and Technology through Grant-in-Aid for Scientific Research (C) 19K01541 and 19K01558 is gratefully acknowledged. All the views expressed in this paper and any errors are the sole responsibility of the authors.

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# Appendices

# A. Photo requirement (originally written in Chinese)

- 1. Submit a recent digital photo (within the past six months) with a white background. The photo must include your entire face and head. There must be no shadows on the face or in the background. No alterations to the photo and no composite photos are allowed.
- Facial requirements: Natural expression; eyes open; lips naturally closed; all facial features clearly visible; glasses may be worn, but the lenses must not be colored, and the outline of the eyes must not be blurred by flash, shadows, or frames; hearing aids or similar items may be worn.
- 3. Head gear: No hats, headscarves, or other accessories may be worn, and if they are worn for religious reasons, they must ensure that they do not obscure the applicant's entire face.
- 4. Photo size: 33 mm wide and 48 mm high.

# B. Experimental instruction for trustors (originally written in Chinese) Start

Welcome to today's experiment. It will be divided into three rounds. The reward that you will receive in the experiment is determined by the sum of those you obtain over the three rounds. In the second-round experiment, multiple decisions will be made by you, and we will randomly

select two decisions to determine your reward in that round. The order of the experiment includes introducing the process of the first-round experiment, followed by conducting the experiment. After the first-round experiment, the process of the second-round experiment will be introduced, and then it will be conducted. When the second-round experiment finishes, the third-round experiment will be described and implemented. Finally, a post-experimental questionnaire will be distributed to you to complete and will be collected individually. Payment will be conducted individually upon completion of the questionnaire. Your experimental ID number in this experiment is the one you were provided by the experimenter when you signed in, and it should match the number on your seat. Please place your cell phone in your bag before the experiment begins and refrain from using it until the end of the experiment. Use of cell phones is prohibited throughout the experiment.

#### The first-round experiment

The procedure of the first-round experiment is described below.

In the experiment, you will make decisions about the money you have. You will receive 20 RMB.

There will be two roles (A or B) in this round. You will be randomly paired with one of the ten participants in another classroom who will play role B. This means that participants in the experiment will be randomly paired into ten pairs, and each pair includes one participant in role A and one in role B.

Let us now consider the specific experimental procedure.

The person in role A will first transfer an arbitrary integer amount (which can also be zero) from his or her 20 RMB to the paired person in role B. This amount will then be multiplied by three by the experimenter and transferred to the paired person in role B. That is, after the transfer, the person in role B will have an amount of money equal to his/her original 20 RMB plus the tripled amount transferred by the paired person in role A.

 $\langle Example \rangle$  Suppose the person in role A decides to transfer 6 RMB to the paired person in role B. After the transfer, the person in role B will have 38 RMB (6 times 3 plus 20), while the person in role A will have 14 RMB (20 minus 6).

Then, the person in role B will return an integer amount (which can also be zero) to the paired person in role A from all the currency he/she has after the transfer.

You and the person in role B, which you are paired with, will be paid for the first round of the experiment by the amount of money you and he/she end up with, which is calculated as follows:

• Your payoff = the first 20 RMB you have - the amount you transfer to the person in role B + the amount that the person in role B returns to you.

• The payoff of the person in role B you are paired with = the first 20 RMB he/she has + the amount that you transfer to role B's person  $\times 3$  – the amount that he/she returns to you.

 $\langle \text{Example} \rangle$  Let's say the person in role A (you) decides to transfer 6 RMB to the person in role B who is paired with, and the person in role B decides to return 11 RMB to the person in role A. The amount of money held by the person in role A is 25 RMB (20 minus 6 plus 11), and the amount of money that the person in role B has is 27 RMB (6 multiplied by 3 plus 20 minus 11). Thus, the payoff for the person playing role A in this round will be 25 RMB, and the payoff for the person playing role B in this round will be 27 RMB.

In this round, you will use two types of sheets: one is the "Recording Sheet," and the other is the "Transfer Amount Recording Sheet."

First, please look at the "Recording Sheet." The "Recording Sheet" is for recording the amount of your transfers and the amount of money that you will finally have. Next, please look at the "Transfer Amount Recording Sheet." This sheet is used to tell the experimenter about the transfer amount.

Before using the "Recording Sheet" and "Transfer Amount Recording Sheet," please fill in your experimental ID number in the blanks where "Your experimental ID number" is listed within both sheets.

Once you have determined your transfer amount, please fill this number in the "Your Transfer Amount" blank of the "Recording Sheet" and write this number on the "Transfer Amount Recording Sheet." The experimenter will collect the "Transfer Amount Recording Sheet." Following this, please calculate the amount of money that the paired person in role B will have after this amount is transferred and fill in the "Amount of money that the person in role B you are paired with will have" blank in the "Recording Sheet." Next, please fill the most likely return you expect from role B in the "Return you expect to receive from Role B" blank of the "Recording Sheet." Finally, after the experimenter fills the return of the person you are paired with as role B in the "Actual Return You Received" blank of the "Recording Sheet," please calculate the final amount of money you have and fill in the "Final amount of money you have" blank in the "Recording Sheet."

If you have any questions about the above experimental instructions, you can raise your hand now, and the experimenter will answer your questions.

The experiment will begin with the confirmation that all experimental participants understand the experimental description.

Please remember that you cannot speak to other participants while the experiment is in progress. If communication such as talking occurs, the experiment will be aborted at that point. If you have any questions, please raise your hand.

## The second-round experiment

The procedure of the second-round experiment is described below.

In this experiment, you will make decisions about the money you have. As such, in this round, you will make ten decisions and will receive 20 RMB for each decision.

There will be two roles (A or B) in this round. You will play role A in this round, and you will be paired one-by-one with the other experimental participants in another classroom who will play role B in this round.

Let us now consider the specific experimental procedure.

First, we will show you the photos of the ten participants who will be paired with you as role B in random order on the screen. Each photo will remain there until each of you finish making a decision.

The person in role A will first decide an integer amount (which can also be zero) from his or her own 20 RMB to transfer to the paired person in role B. The endowment for each decision is 20 RMB, and the role A participants will make a total of ten decisions.

The amount from each decision will then be tripled by the experimenter and transferred to the paired person in role B. That is, after the transfer, the amount of money that role B has for that decision will be his/her original 20 RMB plus the tripled amount of money that is transferred by the paired role A person. Each person in role B will receive transfers from the ten different people in role A, and they will decide any integer amount (or zero) from all of the money they have for that decision after the transfer one-by-one as the return to the person in role A.

Your payoff and that of the person you are paired with in role B in this round will be determined by the results of two randomly selected decisions from all the ten decisions. The formula for calculating the payoff of each decision is exactly the same as that in the first-round experiment. The only difference between the first-round and second-round experiments in calculating the payoff is that the first-round experiment has only one decision, so the result of that decision is used directly to calculate the payoff, while the second-round experiment has ten decisions, and the payoff is calculated based on two randomly selected results, so the payoff in the second-round experiment equals the sum of those from the two randomly selected decisions.

In this round, you will use two types of sheets, one is the "Recording Sheet" and the other is the "Transfer Amount Recording Sheet."

First, please look at the "Recording Sheet." This is for recording the amount of your transfers and the amount of money that you will finally have. Next, please look at the "Transfer Amount Recording Sheet." This will be used to tell the experimenter your transfer amount.

Before using the "Recording Sheet" and "Transfer Amount Recording Sheet," please fill in your experimental ID number in the blanks stating "Your experimental ID number" in both sheets.

Once you have determined your transfer amount, please fill this number in the "Your

Transfer Amount" blank of the "Recording Sheet" and write this number on the "Transfer Amount Recording Sheet." The experimenter will then collect the "Transfer Amount Recording Sheet." Following this, please calculate the amount of money that the paired person in role B will have after this amount is transferred and fill in the "Amount of money that the person in Role B you are paired with will have" blank in the "Recording Sheet." Next, please fill the most likely return you expect from role B in the "Return you expect to receive from role B" blank of the "Recording Sheet." Finally, after the experimenter fills the return of the person you are paired with as role B in the "Actual Return You Received" blank of the "Recording Sheet," please calculate the final amount of money you have and fill in the "Final amount of money you have" blank in the "Recording Sheet."

If you have any questions about the above experimental instructions, you can raise your hand now and an experimenter will answer your questions.

The experiment will begin with a confirmation that all experimental participants understand the experimental description.

Please remember that you cannot speak to other participants while the experiment is in progress. If communication such as talking occurs, the experiment will be aborted at that point. If you have any questions, please raise your hand.

# The third-round experiment

The procedure of the third-round experiment and the calculation of the payoffs are exactly the same as those in the first-round experiment. In case of doubt, please refer to the description of the first-round experiment.

#### End

The sum of your payoffs in the first, second, and third rounds will be your final reward for this experiment. At the end of the experiment, please answer a simple questionnaire while we calculate the rewards for all participants. We will inform you individually of the amount you will receive when the calculation finishes. At that time, please leave all of the experimental instructions on your desk and bring the completed questionnaire (please try not to miss any questions) and your own belongings to our designated place to receive your reward.

Finally, since similar experiments will continue to be carried out in the future, please do not talk to anyone about the contents of this experiment in order avoid affecting the results of future experiments. Thank you for your cooperation.

# C. Experimental instruction form trustees (originally written in Chinese) Start

Welcome to today's experiment. It will be divided into three rounds. The reward that you will receive in the experiment is determined by the sum of those you obtain in the three rounds. In the second-round experiment, multiple decisions will be made by you, and we will randomly select two decisions to determine your reward in that round. The order of the experiment is to first introduce the process of the first-round experiment, followed by conducting the experiment. After the first-round experiment, the process of the second-round experiment will be introduced, and then it will be conducted. When the second-round experiment finishes, the third-round experiment will be described and implemented. Finally, a post-experimental questionnaire will be distributed to you for completion and collected individually. Payment will be conducted individually after completing the questionnaire. Your experimental ID number in this experiment is the one you were told by the experimenter when you signed in, and it should match the number in your seat. Please place your cell phone in your bag before the experiment starts and do not take it out for the remainder of the experiment. Use of cell phones is prohibited throughout the experiment.

#### The first-round experiment

The procedure of the first-round experiment is described below.

In the experiment, you will make decisions about the money you have. You will receive 20 RMB.

There will be two roles (A or B) in this round. You will play role B in this round. You will be randomly paired with one of the ten participants in another classroom who will play role A. This means that participants in the experiment will be randomly paired into ten pairs, and each pair includes one role A and one role B participants.

Let us now consider the specific experimental procedure.

The person in role A will first transfer an arbitrary integer amount (which can also be zero) from his or her 20 RMB to the paired person in role B. This amount will then be multiplied by three by the experimenter and transferred to the paired person in role B. That is, after the transfer, the person in role B will have an amount of money equal to his/her original 20 RMB plus the tripled amount transferred by the paired person in role A.

 $\langle Example \rangle$  Suppose the person in role A decides to transfer 6 RMB to the paired person in role B. After the transfer, the person in role B will have 38 RMB (6 times 3 plus 20), while the person in role A will have 14 RMB (20 minus 6).

Then, the person in role B will return an integer amount (which can also be zero) to the paired person in role A, from all the currency he/she has after the transfer.

You and the person in role A you are paired with will be paid for the first-round experiment by the amount of money you and he/she end up with, which is calculated as follows.

• Your payoff = the first 20 RMB you have + the amount transferred to you by the person in

role A  $\times$  3 - the amount that you return to him/her.

• The payoff of the person in role A you paired with = the first 20 RMB he/she has - the amount he/she that transfers to you + the amount that you return to him/her.

 $\langle \text{Example} \rangle$  Let's say that person in role A (the person paired with you) decides to transfer 6 RMB to the person in role B who is paired with (you), and the person in role B decides to return 11 RMB to the person in role A. The amount of money held by the person in role A is 25 RMB (20 minus 6 plus 11), and the amount of money that the person in role B has is 27 RMB (6 multiplied by 3 plus 20 minus 11). Thus, the payoff for the person playing role A in this round will be 25 RMB, and the payoff for the person playing role B in this round will be 27 RMB.

In this round, you will use two types of sheets: one is the "Recording Sheet" and the other is the "Transfer Amount Recording Sheet."

First, please look at the "Recording Sheet." This is for recording the amount of your transfers and the amount of money that you will finally have. Next, please look at the "Transfer Amount Recording Sheet." It will be used to tell the experimenter of your transfer amount.

Before using the "Recording Sheet" and "Transfer Amount Recording Sheet," please fill in your experimental ID number in the blanks of "Your experimental ID number" in both sheets.

The first column of the "Recording Sheet" (i.e., the "Transfer Amount from the person in role A" column) is used to record the transfer amount for the person in role A. This column will be filled out by the experimenter for you after the person in Role A has decided. Based on this amount, you will need to calculate the amount of money that you have after the transfer and provide it in the second column (i.e., "Amount of money you will have after the transfer"). Following this, please determine the amount of your return to the role A person you are paired with and provide it in the third column (i.e., the "Amount of your return" column). Meanwhile, please write this figure on the "Return Amount Recording Sheet." The "Return Recording Sheet" will then be collected by the experimenter. Finally, please calculate the final amount of money you have and fill in the "Final amount of money you have" blank in the "Recording Sheet."

If you have any questions about the above experimental instructions, you can raise your hand now and an experimenter will answer your questions.

The experiment will begin with a confirmation that all experimental participants understand the experimental description.

Please remember that you cannot speak to other participants while the experiment is in progress. If communication such as talking occurs, the experiment will be aborted at that point. If you have any questions, please raise your hand.

# The second-round experiment

The procedure of the second-round experiment is described below.

In the experiment, you will make decisions about the money you have. In this round, you will make ten decisions. You will receive 20 RMB for each decision.

There will be two roles (A or B) in this round. You will play role B in this round, and you will be paired one-by-one with the other experimental participants in another classroom who will play role A in this round.

Let us now consider the specific experimental procedure.

First, we will present the photos you provided beforehand on the screen in another classroom where the participants in role A are. These photos will be shown to them in random order when they make decisions.

The person in role A will first decide an integer amount (which can also be zero) from his or her own 20 RMB to transfer to the paired person in role B. The endowment for each decision is 20 RMB, and the role A participants will make a total of ten decisions.

The amount from each decision will then be tripled by the experimenter and transferred to the paired person in role B. That is, after the transfer, the amount of money that role B has for that decision will be his/her original 20 RMB plus the tripled amount of money that is transferred by the paired role A person. Each person in role B will receive transfers from the ten different people in role A, and you (role B) will decide any integer amount (or zero) from all of the money they have for that decision after the transfer one-by-one as the return to the person in role A.

Your payoff and that of the person you are paired with in role A in this round will be determined by the results of two randomly selected decisions from all ten decisions. The formula for calculating the payoff of each decision is exactly the same as that in the first-round experiment. The only difference between the first-round and second-round experiments in calculating the payoff is that the first-round experiment has only one decision, so the result of that decision is used directly to calculate the payoff, while the second-round experiment has ten decisions, and the payoff is calculated based on two randomly selected results, so the payoff in the second-round experiment equals to the sum of those from the two randomly selected decisions.

In this round, you will use two types of sheets, one is the "Recording Sheet," and the other is the "Transfer Amount Recording Sheet."

First, please look at the "Recording Sheet." The "Recording Sheet" is for recording the amount of your transfers and the amount of money that you will finally have. Next, please look at the "Transfer Amount Recording Sheet." It is used to tell the experimenter of your transfer amount.

Before using the "Recording Sheet" and the "Transfer Amount Recording Sheet," please fill in your experimental ID number in the "Your experimental ID number" blanks of both sheets.

The first column of the "Recording Sheet" (i.e., the "Transfer Amount from the person in role A" column) is used to record the transfer amount for the person in role A. This column will

be filled out by the experimenter for you after the person in role A has decided. Based on this amount, you need to calculate the amount of money that you will have after the transfer and provide it in the second column (i.e., "Amount of money you will have after the transfer"). Following this, please determine the amount of your return to the role A person you are paired with and provide it in the third column (i.e., the "Amount of your return" column). Meanwhile, please write this figure on the "Return Amount Recording Sheet." The "Return Recording Sheet" will then be collected by the experimenter. Finally, please calculate the final amount of money you have and provide it in the "Final amount of money you have" blank in the "Recording Sheet."

If you have any questions about the above experimental instructions, you can raise your hand now and an experimenter will answer your questions.

The experiment will begin with a confirmation that all experimental participants understand the experimental description.

Please remember that you cannot speak to other participants while the experiment is in progress. If communication such as talking occurs, the experiment will be aborted at that point. If you have any questions, please raise your hand.

#### The third-round experiment

The procedure of the third-round experiment and the calculation of the payoffs are exactly the same as those in the first-round experiment. In case of doubt, please refer to the description of the first-round experiment.

# End

The sum of your payoffs in the first, second, and third rounds will be your final reward for this experiment. At the end of the experiment, please answer a simple questionnaire when we calculate the rewards for all participants. We will inform you individually when the calculation finishes. At that time, please leave all the experimental instructions on your desk and bring the completed questionnaire (please try not to miss any questions) and your own belongings to our designated place to receive your reward.

Finally, since similar experiments will be carried out in the future, please do not talk to anyone about the contents of this experiment in order avoid affecting the results of future experiments. Thank you for your cooperation.

# **D.** Post-experimental questionnaire for trustors (originally written in Chinese)

Q1. Your gender. Please check the corresponding answer.

1. Male

2. Female

Q2. Your year of birth. Please fill in a specific year in the parentheses.

( ) Year

)

)

Q3. What is your major? Please fill in the specific major in parentheses.

(

Q4. Where is your hometown? Please fill in a specific province in the parentheses.

(

Q5. Where was the high school you attended? Please fill in a specific province in the parentheses.

Q6. Your monthly living expenses. Please check the corresponding answer.

- 1. Less than 500 RMB per month
- 2. Between 500 RMB and 999 RMB per month
- 3. Between 1000 RMB and 1499 RMB per month
- 4. Between 1500 RMB and 1999 RMB per month
- 5. Between 2000 RMB and 2499 RMB per month
- 6. Between 2500 RMB and 2999 RMB per month
- 7. Between 3000 RMB and more per month

Q7. Frequency of studying economics and/or reading books on economics. Please refer to the corresponding answers.

- 1. Never
- 2. Rarely
- 3. Occasionally
- 4. Often
- 5. Always

Q8. Generally speaking, do you think most people can be trusted or that you need to be very careful in dealing with people? Please check the appropriate answer.

- 1. Most people can be trusted
- 2. You need to be very careful in dealing with people

Q9. Generally speaking, do you think most people would try to take advantage of you if they got

a chance, or would they try to be fair? Please check the appropriate answer.

- 1. Most people would try to take advantage of you if they got a chance
- 2. Most people would try to be fair

Q10. Generally speaking, do you think most of the time people try to be helpful, or that they are mostly just looking out for themselves? Please check the appropriate answer.

- 1. Most of the time people try to be helpful
- 2. People are mostly just looking out for themselves

Q11. Suppose you bought a lottery ticket a week ago and now you are told that you have won and have two options to receive the prize: Option A is to receive the lottery prize amount directly, and Option B is to flip a coin and receive 10000 RMB if the coin is heads or 0 RMB if it is tails. What option will you choose when your lottery prize amount is listed in the table below.

A. Lottery Prize Amount	B. Coin Flip	Your Choice of A or B
2000 RMB	10000 RMB or 0	
3000 RMB	10000 RMB or 0	
4000 RMB	10000 RMB or 0	
5000 RMS	10000 RMB or 0	
6000 RMB	10000 RMB or 0	
7000 RMB	10000 RMB or 0	
8000 RMB	10000 RMB or 0	

Q12. What factors did you consider when making the relevant decisions in the experiment? Please check the appropriate answer. Multiple choices are allowed.

- 1. Gender of the other party
- 2. Being as fair as possible with the other party
- 3. Looking out for the other person's interests
- 4. How will the other party evaluate me afterwards
- 5. Whether the other party looks good or not
- 6. Whether the other party looks trustworthy or not
- 7. Whether the other party looks aggressive or not
- 8. Whether the other party looks cooperative or not
- 9. Others (specifically: )

Q13. Do you know any of the people in the photos shown to you in the second-round experiment?

Please check the appropriate answer.

1. Yes

2. No

If you selected "Yes" in the previous question and remember his/her photo number, please fill in the exact number in the parentheses. (Please do not fill in the parentheses if you forget the photo number or if it is vague)

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Q14. We will place 20 photos in a random order on the screen in front of us. Please evaluate the photographs by answering the following four questions. Each photo will remain there until you finish answering the questions. The questions are:

Question One: Does he/she look good?

Question Two: Do you think he/she looks good in public opinion?

Question Three: Does he/she look trustworthy?

Question Four: Do you think he/she looks trustworthy in public opinion?

The questions evaluating each photo will be answered using scores from 0 to 10. In Questions One and Two, a 10 means he is very handsome or she is very beautiful, a 0 means he is not very handsome or that she is not very beautiful, and a 5 represents an average level of handsomeness/beauty. In questions Three and Four, a 10 means he/she looks very trustworthy, a 0 means he/she looks very untrustworthy, and a 5 indicates an average level of trustworthiness.

The evaluation sheet listed below is divided into three columns. The first column is filled with the number of the photos currently displayed on the screen being evaluated. Column 2 lists the number of questions. You need to answer each question on the corresponding photos by circling the corresponding score in the "Score" column.

Photo	Question		Score									
	one	0	1	2	3	4	5	6	7	8	9	10
D705	two	0	1	2	3	4	5	6	7	8	9	10
B/05	three	0	1	2	3	4	5	6	7	8	9	10
	four	0	1	2	3	4	5	6	7	8	9	10
	one	0	1	2	3	4	5	6	7	8	9	10
D906	two	0	1	2	3	4	5	6	7	8	9	10
B800	three	0	1	2	3	4	5	6	7	8	9	10
	four	0	1	2	3	4	5	6	7	8	9	10
D701	one	0	1	2	3	4	5	6	7	8	9	10
B\01	two	0	1	2	3	4	5	6	7	8	9	10

	three	0	1	2	3	4	5	6	7	8	9	10
	four	0	1	2	3	4	5	6	7	8	9	10
	one	0	1	2	3	4	5	6	7	8	9	10
D70(	two	0	1	2	3	4	5	6	7	8	9	10
B/06	three	0	1	2	3	4	5	6	7	8	9	10
	four	0	1	2	3	4	5	6	7	8	9	10
	one	0	1	2	3	4	5	6	7	8	9	10
D004	two	0	1	2	3	4	5	6	7	8	9	10
B804	three	0	1	2	3	4	5	6	7	8	9	10
	four	0	1	2	3	4	5	6	7	8	9	10
	one	0	1	2	3	4	5	6	7	8	9	10
D702	two	0	1	2	3	4	5	6	7	8	9	10
B/02	three	0	1	2	3	4	5	6	7	8	9	10
	four	0	1	2	3	4	5	6	7	8	9	10
	one	0	1	2	3	4	5	6	7	8	9	10
D709	two	0	1	2	3	4	5	6	7	8	9	10
B/08	three	0	1	2	3	4	5	6	7	8	9	10
	four	0	1	2	3	4	5	6	7	8	9	10
	one	0	1	2	3	4	5	6	7	8	9	10
D905	two	0	1	2	3	4	5	6	7	8	9	10
B802	three	0	1	2	3	4	5	6	7	8	9	10
	four	0	1	2	3	4	5	6	7	8	9	10
	one	0	1	2	3	4	5	6	7	8	9	10
D702	two	0	1	2	3	4	5	6	7	8	9	10
B/03	three	0	1	2	3	4	5	6	7	8	9	10
	four	0	1	2	3	4	5	6	7	8	9	10
	one	0	1	2	3	4	5	6	7	8	9	10
D907	two	0	1	2	3	4	5	6	7	8	9	10
D00/	three	0	1	2	3	4	5	6	7	8	9	10
	four	0	1	2	3	4	5	6	7	8	9	10
	one	0	1	2	3	4	5	6	7	8	9	10
D700	two	0	1	2	3	4	5	6	7	8	9	10
B/09	three	0	1	2	3	4	5	6	7	8	9	10
	four	0	1	2	3	4	5	6	7	8	9	10
	one	0	1	2	3	4	5	6	7	8	9	10
D704	two	0	1	2	3	4	5	6	7	8	9	10
B/04	three	0	1	2	3	4	5	6	7	8	9	10
	four	0	1	2	3	4	5	6	7	8	9	10

r		1	1	1	1					1		r
	one	0	1	2	3	4	5	6	7	8	9	10
D800	two	0	1	2	3	4	5	6	7	8	9	10
D009	three	0	1	2	3	4	5	6	7	8	9	10
	four	0	1	2	3	4	5	6	7	8	9	10
	one	0	1	2	3	4	5	6	7	8	9	10
D707	two	0	1	2	3	4	5	6	7	8	9	10
B/0/	three	0	1	2	3	4	5	6	7	8	9	10
	four	0	1	2	3	4	5	6	7	8	9	10
	one	0	1	2	3	4	5	6	7	8	9	10
D710	two	0	1	2	3	4	5	6	7	8	9	10
B/10	three	0	1	2	3	4	5	6	7	8	9	10
	four	0	1	2	3	4	5	6	7	8	9	10
	one	0	1	2	3	4	5	6	7	8	9	10
D001	two	0	1	2	3	4	5	6	7	8	9	10
B801	three	0	1	2	3	4	5	6	7	8	9	10
	four	0	1	2	3	4	5	6	7	8	9	10
	one	0	1	2	3	4	5	6	7	8	9	10
D010	two	0	1	2	3	4	5	6	7	8	9	10
B810	three	0	1	2	3	4	5	6	7	8	9	10
	four	0	1	2	3	4	5	6	7	8	9	10
	one	0	1	2	3	4	5	6	7	8	9	10
D002	two	0	1	2	3	4	5	6	7	8	9	10
B802	three	0	1	2	3	4	5	6	7	8	9	10
	four	0	1	2	3	4	5	6	7	8	9	10
	one	0	1	2	3	4	5	6	7	8	9	10
<b>D</b> 000	two	0	1	2	3	4	5	6	7	8	9	10
B808	three	0	1	2	3	4	5	6	7	8	9	10
	four	0	1	2	3	4	5	6	7	8	9	10
	one	0	1	2	3	4	5	6	7	8	9	10
D002	two	0	1	2	3	4	5	6	7	8	9	10
B803	three	0	1	2	3	4	5	6	7	8	9	10
	four	0	1	2	3	4	5	6	7	8	9	10

# E. Post-experimental questionnaire for trustees (originally written in Chinese)

Q1. Your gender. Please check the corresponding answer.

- 1. Male
- 2. Female

Q2. Your year of birth. Please fill in a specific year in the parentheses.

( ) Year

)

)

Q3. What is your major? Please fill in the specific major in the parentheses.

(

Q4. Where is your hometown? Please fill in a specific province in the parentheses.

(

Q5. Where was the high school you attended? Please fill in a specific province in the parentheses.

Q6. Your monthly living expenses. Please check the corresponding answer.

- 1. Less than 500 RMB per month
- 2. Between 500 RMB and 999 RMB per month
- 3. Between 1000 RMB and 1499 RMB per month
- 4. Between 1500 RMB and 1999 RMB per month
- 5. Between 2000 RMB and 2499 RMB per month
- 6. Between 2500 RMB and 2999 RMB per month
- 7. Between 3000 RMB and more per month

Q7. Frequency of studying economics and/or reading books on economics. Please refer to the corresponding answers.

- 1. Never
- 2. Rarely
- 3. Occasionally
- 4. Often
- 5. Always

Q8. Generally speaking, do you think most people can be trusted or that you need to be very careful in dealing with people? Please check the appropriate answer.

- 1. Most people can be trusted
- 2. You need be very careful in dealing with people

Q9. Generally speaking, do you think most people would try to take advantage of you if they got

a chance or would they try to be fair? Please check the appropriate answer.

- 1. Most people would try to take advantage of you if they got a chance
- 2. Most people would try to be fair

Q10. Generally speaking, do you think most of the time people try to be helpful or that they are mostly just looking out for themselves? Please check the appropriate answer.

- 1. Most of the time people try to be helpful
- 2. People are mostly just looking out for themselves

Q11. Suppose you bought a lottery ticket a week ago and now you are told that you have won and have two options to receive the prize: Option A is to receive the lottery prize amount directly, and Option B is to flip a coin and receive 10000 RMB if the coin is heads or 0 RMB if it is tails. What option will you choose when your lottery prize amount is listed in the table below.

A. Lottery Prize Amount	B. Coin Flip	Your Choice of A or B
2000 RMB	10000 RMB or 0	
3000 RMB	10000 RMB or 0	
4000 RMB	10000 RMB or 0	
5000 RMS	10000 RMB or 0	
6000 RMB	10000 RMB or 0	
7000 RMB	10000 RMB or 0	
8000 RMB	10000 RMB or 0	

Q12. What factors did you consider when making the relevant decisions in your experiment? Please check the appropriate answer. Multiple answers are allowed.

- 1. To be as fair as possible with the other party
- 2. Looking out for the interests of the other party
- 3. How the other party will evaluate me afterwards

)

4. Others (specifically:

Q13. Is there anyone you know among the people in role A of the experiment? Please check the corresponding answer.

- 1. Yes
- 2. No