

An Experimental Economic Study of Behavior based on Present Hedonic Preferences

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Abstract. This study included 80 subjects. Using trust game task (TG) and hedonic risk subscale and economic risk subscale of specific domain risk scale, the effects of economic risk preference and hedonic risk preference on trust behavior were studied. The research shows that in the two different trust response situations, the choice of hedonic risk preference has a significant relationship with people's trust, the choice of hedonic risk preference has a significant impact on people's trust degree, and the choice of hedonic preference has a significant impact on people's trust degree. In less social interaction situations, there is no obvious correlation between individual financial risk and credit. After the loss of feedback, the trust degree of the high socially-high financial risk group was significantly greater than that of the low socially-high financial risk group, but there was no significant difference between the trust degree of the high socially-low financial risk group and the high socially-low financial risk group. Therefore, people with high-risk propensity are more likely to make a trust decision again than people with low-risk propensity.

Keywords: Economic Risk; Hedonic Preference for Risk; Trust Games; Economics.

1. Introduction

Trust issues are of great significance in disciplines such as sociology and psychology. Thielmann and Hilbig believe that trust is a kind of risk decision made by an individual in an uncertain situation, based on the expectation of the friendly behavior of the other party, even though there is the possibility of betrayal, the outcome depends on the behavior of the other party. However, with the deepening of research, more and more scholars believe that economic risk cannot accurately predict the occurrence of trust, on the contrary, individuals are more likely to be influenced by hedonic preference under certain circumstances, such as in high-risk environments, individuals have weak perception of hedonic preference [1]. Hedonic preference emphasizes the role of social situation on individual behavior, while economic risk preference emphasizes the titer effect of individual behavior. Economic risk predisposition is more reflected in game situations such as "gambling", while entertainment risk predisposition is more reflected in "game situations". It has been pointed out that compared with economic risks, the risk of hedonic preference can better predict and explain consumers' trust. In the hedonic situation, people can make "should" decisions, and in the hedonic situation, people can make moral decisions. Through the review of the existing literature, the paper believe that the current research has not systematically investigated the impact of corporate credit from multiple levels. In order to answer this question, this project intends to investigate the influence of different dimensions of risk appetite on individual trust from a multi-dimensional perspective.

2. Statistical Analysis Methods

2.1. Respondent

By random sampling method, a questionnaire survey was carried out among the college students of a county government institution. The subjects were 40 males and 40 females, with an average age of 27. When the experiment is complete, the subjects are rewarded.

2.2. Trust Countermeasures

This paper adopts a simple trust game problem. Task: The principal and the principal are given 10 original funds before each interaction, and the principal needs to decide whether to hand over the funds to an unknown partner [2]. If the subject is not willing to surrender, the task is over and the two people each receive 10 points. If the tested object gives its score to the opponent, the tested object gets three times the score and decides how the score is distributed; The trust manager has two options: exclusivity or sharing, and no matter which option he chooses, the current interaction will end and both parties will receive their respective benefits.

The interaction scenario in the experiment was an anonymous scenario. The researchers told the subjects that before the experiment, they had picked 400 representative adults and asked them a question: "If a person is trustworthy and has earned 30 points, what decision would they make between two people?" And store their choices in the computer, and in each round of interaction, the computer will randomly choose an adult's choice to end the round of interaction [3]. In reality, however, the paper can use a pre-designed test scheme to regulate the feedback decisions of each round, so that the overall enhancement effect is about 50%.

2.3. Experimental Procedure

The subjects were first informed of the experimental conditions before the experiment, and then the experiment was done 10 times to make the subjects understand the experiment process. At the beginning of each interaction, participants are presented with a decision tree that allows them to understand possible choices and outcomes. After a random cross appeared in 800 ms to 1000 ms, the subjects were shown a decision option graph, and in this decision, they chose 1 or 3 keys to believe or not to believe [4]. The selection method carried out a balance among the subjects; If the time limit is exceeded without input, the decision selection chart is displayed again and requested to end the input. Finally, after a random darkness, the effect of this interaction is displayed on the screen. This "trust game" requires 150 loops and takes about 30 minutes.

2.4. Contents of Questionnaire Survey

After the completion of the experiment, Blais, Weber et al. prepared a set of special domain risk scale with internal compatibility coefficient of 0.80 and 0.70, which was measured on a seven-point scale.

3. Research Achievement

3.1. Operation Check

B analyzing the proportion of mutual trust in the three feedback ways (reciprocity, neutrality and betrayal), the paper investigate the influence of the previous mutual trust ways on the new mutual trust behaviors [5]. The results show that the past feedback style has no significant impact on the current trust behavior of individuals, so the past feedback style has no significant impact on the current trust behavior of individuals, which further confirms the effectiveness of the single interactive game operation in this study.

3.2. Data Processing

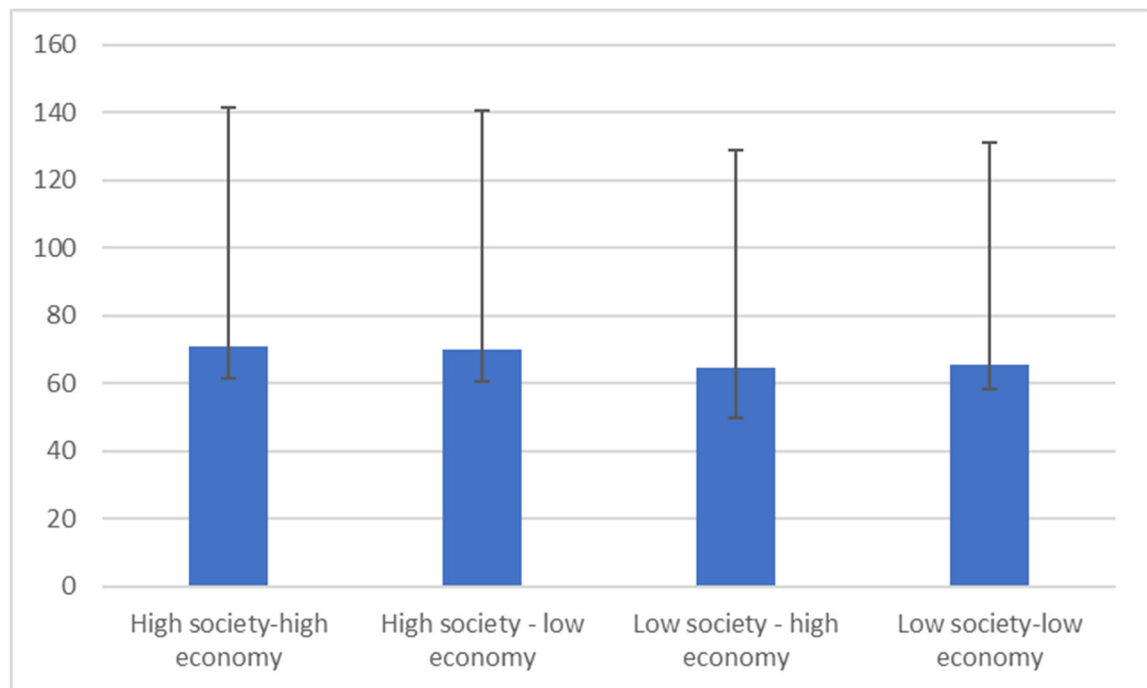
The results show that there is no significant correlation between individual hedonic intention and economic risk, which indicates that the two have independent structures. According to the scores of the subjects in the two indicators of recreational tendency risk and economic risk, the subjects were divided into four categories by using the median group division method: high sociability, high sociability, low sociability, high sociability, high sociability and low sociability [6]. The average and standard deviation of trust degree and response time of the four different groups were respectively shown in Table 1.

Table 1. Means and standard deviations of trust and response time

	High society-high economy	High society - low economy	Low society - high economy	Low society-low economy
Trust rate (%)	70.75±9.22	70.19±9.88	64.44±14.69	65.49±7.26
Trust response time (ms)	615.06±268.75	587.74±161.92	516.54±120.29	702.5±300.59
Distrust reaction time (ms)	571.19±224.93	557.94±151.42	526.4±108.95	675.86±286.6
Trust rate after reciprocal feedback (%)	66.89±20.4	70.29±22.46	65.33±32.43	57.15±19.02
Trust rate after neutral feedback (%)	73.5±15.27	72.56±19.3	71.81±18.76	64.57±19.51
Trust rate after betrayal feedback (%)	72.94±13.15	66.04±24.09	48.35±26.35	69.95±17.53

3.3. Variance of Trust

The ANOVA of 2 (hedonic preference risk group: high group/low group) × 2 (economic risk group: high group/low group) for the trust rate of the subjects only showed that the main effect of hedonic preference risk group was obvious (that is, the trust rate of the subjects in the high hedonic preference risk group was significantly higher than that in the low hedonic preference risk group). No significant main effect was found in the financial risk classification. The interaction between the two is not obvious.

**Fig 1.** Compares the trust of groups with high and low enjoyment preference risk and economic risk

3.4. Conduct Variance Analysis for the Overall Response Time

By using 2 (risk of enjoyment preference - high/low degree) and 2 (economic and financial risk - high/low degree) combination models, the paper conducted 2 (dependent - independent) and 2

combination models in response to the two choices. Our research shows that there is a significant interaction between the two choices, namely: The response time of one choice is longer than the response time of the other choice [7]. The interaction between the risk group that determines style and hedonic preference is significant at the boundary (Figure 3). The results show that in the case of hedonic preference risk, the response time of people with high hedonic bias to trust decision is significantly greater than that of people with low hedonic bias to distrust decision, while there is no significant difference in the response time of people with low hedonic bias to distrust decision. Other main influencing factors and interaction effects are not obvious.

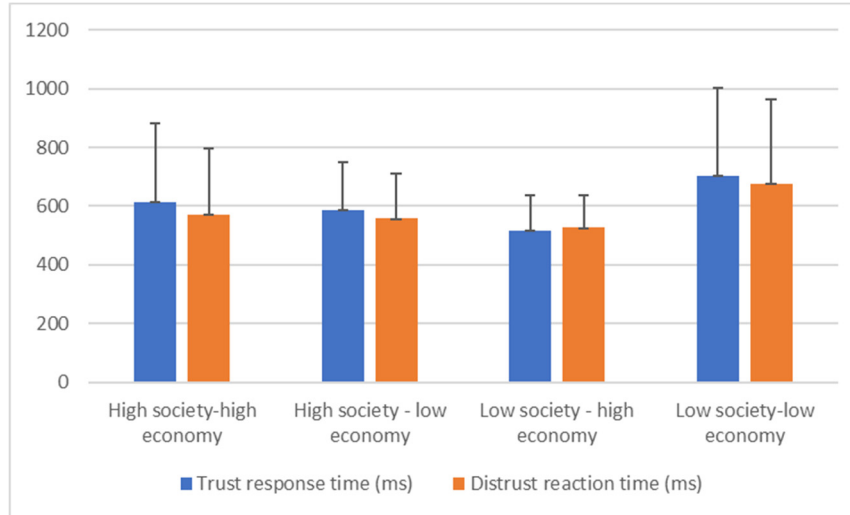


Fig 2. The interaction between the risk group that determines style and hedonic preference is significant at the boundary

3.5. Influence of Different Feedback Methods on Trust

The relationship between the pleasure preference risk group, the economic risk group, and the reward mode is extremely significant. Simple effect analysis shows that there is a significant interaction between the hedonic risk group and the economic risk group on the impact of trust after betrayal feedback, which indicates that subjects in the high-social-high-economic risk group have a significantly higher degree of trust after betrayal feedback than those in the low-social-high-economic risk group [8]. However, there was no significant difference in trust for the higher socially-lower financial risk group. The interaction between the hedonic risk groups and the financial risk groups was not significant in the neutral or reciprocal risk groups (Figure 4).

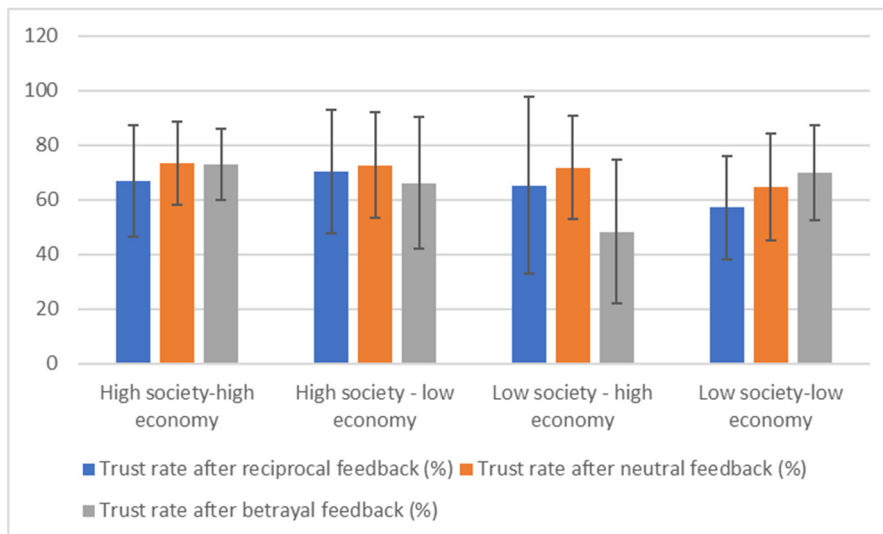


Fig 3. Comparison of trust levels in four groups after betraying neutrality and reciprocal reward

4. Discussion

Using the method of trust game theory, this paper examines the effects of risk and hedonic preference on individual trust behavior in financial market. In the overall trust choice ratio, subjects with higher hedonic preference had higher trust than those with lower hedonic preference. This conclusion is consistent with the results of previous experiments. For example, in our study of trust games, the paper found that people with a high risk preference are more likely to trust than people with a low risk preference. Research has shown that when cheated, people have a negative emotional response to the person being cheated, and when cheated, people ignore the negative emotional response after being cheated and have a negative emotional response to the person being cheated. In addition, the paper found that individuals with a higher hedonic preference had a much longer trusting response to others than those with a less trusting response, while there was no significant difference in the trusting response time between individuals with a lower hedonic preference and those with a less trusting response [9]. When the deceived person makes a decision about the deceived person, the response time to the deceived person will be extended, and the choice of the deceived person will be reduced. At the same time, however, ethical principle theory states that individuals trust other individuals more because they trust other individuals more. Therefore, people with high hedonic preference will produce more trust response time and more trust decisions under the action of two factors at the same time. In addition, the paper do not find that financial risk can effectively predict the degree of personal trust in enterprises, because financial risk preference does not significantly affect the degree of personal trust in enterprises. The theory of ethical norms states that under ethical norms, the higher the degree of trust an individual places on other individuals, the higher the degree of trust an individual places on other individuals. Therefore, in a small number of games, the temptation of interests is unable to let people break the "moral code" of the other side.

Through the study of the effect of different feedback methods on personal trust, it was found that after the loss of feedback, people in the high socio-high economic risk group were significantly more trusting than after the gain, and there was no significant difference in people's trust after the gain of more benefits and more rewards. Therefore, the paper believe that the last information transmission may have a certain impact on the information transmission process in the next information transmission process, but this impact process may be affected by the situation or personal characteristics and other factors.

5. Conclusion

The difference in trust between people with high and low hedonic preferences is largely due to the fact that people with high hedonic preferences are more likely to re-trust after a betrayal than people with low hedonic preferences. This suggests that individuals with high hedonic preferences are more likely to adhere to social norms and "betrayal tolerance," and are reluctant to trust others a second time even if they have been betrayed by others.

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