Timely Feedback Promotes Prosocial Behavior of Adolescents

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Abstract. The purpose of this experiment is to explore the influence of benign feedback on subjects' behaviors in social interaction. In this experiment, students from a middle school were selected as subjects, and a two-factor mixed design was used to explore the amount of money allocated to them in the case of more benign feedback and less benign feedback, as well as changing the presentation order of the two situations. The results showed that in the situation of more benign feedback, the amount allocation is more than that in the situation of less benign feedback. And when more benign feedback is presented first, the amount allocation of subjects is also more than when less benign feedback is presented first. Therefore, in dealing with people, don't be stingy about saying "thank you", it will promote people's pro-social behavior, and the impact is persistent.

Introduction

Prosocial behavior is a key to the study of social problems because prosocial behavior has been defined as voluntary behavior intended to benefit another\cite{1}. Adolescence is an important stage of prosocial behavior development, educating children during adolescence can influence their later social behavior, and this result has cross-cultural consistency\cite{2}.

In recent years, more and more social problems have been reported. Therefore, it raises people’s concern about how to solve social problems. Many scholars have begun to study the factors that influence prosocial behavior. Because empathy concerns are consistently associated with subsequent prosocial behavior. Boys and girls are at different stages of adolescent social development: for boys, prosocial behavior levels begin to develop from age 14 to 17, then decline slightly. For girls, prosocial behavior increases before age 16, then decreases slightly\cite{3}. Different parenting styles also affect the development of prosocial behaviors\cite{4}, which indicates that external education can promote the development of prosocial behaviors of adolescents. In addition, Studies have shown that rewards given after the occurrence of prosocial behavior promote prosocial behavior. When people receive proportionally increased monetary rewards, they choose to share other’s pain more than when people receive no monetary and constant monetary\cite{5}. Not only that, when peers are present accompanying by feedback, adolescents tend to do more prosocial behaviors, like donate more. Simultaneously, it also enhance activity in dmPFC, TPJ and STS, which are social brain regions\cite{6}. The results also proved effective in adolescent males with autism\cite{7}.

From previous studies, the different forms of external environment have an impact on prosocial behavior\cite{5}. However, most previous studies have explored the influence of the combination of peer presence and feedback, or the influence of monetary feedback on prosocial behavior. The present study investigated whether benign feedback from recipients promotes prosocial behavior in adolescents. At the same time, whether there is a difference between timely and delayed benign feedback on the prosocial behavior of adolescents.

Experiment

Participant

In this experiment, students from a middle school were selected. Abnormal data were excluded by the Jefferson Scale of Empathy-Health Professionals, and 61 subjects (thirty males) were finally
selected. All the subjects were volunteers and were randomly divided into two groups: more benign feedback group first and more benign feedback group later.

**Experiment Design**

The mixed experiment design of 2*2 was adopted in this experiment. Among them, the feedback type is internal design, which is divided into two groups: More benign feedback and less benign-feedback. The order of feedback was designed between subjects, which was divided into two groups: feedback group first and feedback group second. The dependent variable is the allocate of money, and the amount allocated is calculated by divide each large group into six smaller groups called trial groups, each of which is again composed of seven trials, and out of the seven trials, there’s a 5-2 ratio of benign feedback and no feedback. Each trial will assign three people the same amount of money, but each person may or may not respond to the same amount of money.

**Procedure**

In this experiment, four similar scenarios were designed. One of them was that you were a college counselor and now you were required to give students A, B and C financial aid equal to each other. You have three choices: give 2000 yuan, 1500 yuan or 1000 yuan. Please choose one scholarship for three students. Participants need choose the allocation of the amount in four scenarios. At the end of each trial, the subject will get a response from three students, and we define two or three students who response with “thank you” as benign feedback, and two or fewer students who respond with “thank you” as none feedback. The experiment was divided into two groups. Group1: more benign feedback first. Group 2: less benign feedback first. Each large group consisted of six groups, each consisting of seven experiments, each consisting of a random 5-2 ratio of well-intentioned benign feedback to no benign feedback. At the end of each experiment, the subjects would receive feedback and then proceed to the next experiment. The procedure of experiment is shown in Fig. 1.

![Figure 1. Procedure of Experiment.](image)

*MBF: More Benign Feedback round; LBF: Less Benign Feedback round

**Result**

![Figure 2. Description Statistics of Money Distribution.](image)

As in Fig. 2a, the money distribution of more benign feedback first: M=1687.02, SD=272.54; the money distribution of less benign feedback first: M=1490.87, SD=205.79. As in Fig.2b, the money distribution of more benign feedback: M=1617.88, SD=249.55; the money distribution of less benign feedback first: M=1563.23, SD=269.47.
The results show that the main effect of feedback is significant. (F=15.526, P=.00<0.05)
The main effect between subject-effects is significant. (F=36.117, P=.00<0.05)
The interaction between feedback type and feedback order is significant. (F=13.452, P=.00<0.05)

Discussion

The experimental results show that the amount allocated in the situation with benign-feedback is more than that no benign feedback. So benign-feedback can have an impact on prosocial behavior, and the impact is positive. This is consistent with our initial assumptions. This may be due to the benign-feedback from others, which improves their positive qualities and self-fulfilling values, thus promoting the increase in the amount of money allocated to them[8].

Through the main effect between groups, it is found that the first group is the experiment that the benign feedback group started first, and the amount allocated is larger than that of the second group, which is the no benign feedback group started first. This result shows the effect of the primacy effect on benign feedback. Primary effect is the first step in the formation of impression. When the subjects are given benign feedback at the beginning, the promotion effect is better than benign feedback after a period of time.

In conclusion, it is very important to strengthen the moral education of teenagers' prosocial behavior, and to teach them to express gratitude timely to the giver when they receive help, which promotes good social norms.

References