

How Positive Emotions Influence Forgiveness of College Students: The Mediation Effect of Self-control

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Abstract: Objective- The purpose of this research is to investigate the relationship between positive emotions and forgiveness of college students, and to examine the mediation effect of self-control. Methods- This study built a theoretical framework and tested it by empirical analysis. A total of 425 questionnaires were distributed to students from a university in Guangzhou. Results- (1) Positive emotions, self-control and forgiveness of college students are positively correlated; (2) Positive emotions have a direct positive predictive effect on forgiveness of college students; (3) Self-control of college students mediate the positive effect of positive emotions on forgiveness. Conclusion- College students' positive emotions are one of the important predictors of their forgiveness, and their self-control mediate the positive relationship between positive emotions and forgiveness.

1. Introduction

Forgiveness refers to the transformation process in which the offended automatically gives up his/her hatred, anger and revenge and is willing to reconcile with the offender after encountering an unfair offense ^[1]. In interpersonal communication, forgiveness is often considered as an effective means to maintain interpersonal harmony, promote social interaction and repair intimate relationships ^[2]. Encountered similar offense, why some people choose revenge while others choose forgiveness? Previous research analyzed some reasons, like individual characteristics, social cognitive factors, relationship factors and factors related to offenders ^[3]. However, the effect of positive emotions on forgiveness has not been thoroughly explored. The broaden-and-build theory of positive emotions distinguishes positive emotions from negative emotions, and explains how positive emotions alter people's thinking mode, act and help them to grow. Therefore, based on the above theory, this study chose college students as samples to deeply explore the effect of positive emotions on forgiveness.

According to the broaden-and-build theory of positive emotions, positive emotions have the functions of extending cognition and activating action ^[4]. Compared to people with low positive emotions, people with high positive emotions are less likely to retaliate and attack because they are not just focus on the negative emotions caused by offensive event. Instead, they make a comprehensive analysis of the causes, motivations and seriousness of offensive behavior. Besides, people with high positive emotions usually have a positive evaluation of the offender ^[5], they are more likely to make external attribution for others' offensive behaviors, so that it reduces resentment and anger towards the offender. Therefore, our research suggests that people with high positive emotions are more likely to adopt forgiveness strategy. Based on this, we proposed hypothesis 1.

H1: positive emotions of college students have a positive relationship with forgiveness.

Pronk and other scholars pointed out that whether an individual can forgive is not only related to whether he/she has the motivation to forgive, but also depend on whether he/she has the ability to regulate and suppress selfish and other negative impulses ^[6]. Self-control reflects one's ability to

overcome impulsive desires and habitual reaction, consciously control his own behaviors and emotions in order to comply with value standards, morality and social expectations [7]. The broaden-and-build theory of positive emotions shows that positive emotions have energy activation effect and can repair negative emotions. On the one hand, positive emotions can help individuals build lasting physical, intellectual, psychological, and social resources. It can increase one's self-control resources and help to better control behaviors and emotions. On the other hand, Positive emotions can counteract negative emotional reactions caused by offensive events. It helps to weaken the effect and intervention of negative emotions on thinking, so as to stimulate their open mind. The broaden-and-build of positive emotions can help individuals change the habitual thinking patterns and adjust their behaviors according to social standards. Thus, individuals can achieve greater self-control.

Individuals with high self-control can suppress the impulse of revenge, resist the temptation of self-interest, and make choices that conform to social expectations [8]. Moreover, individuals with high self-control will keep rational thinking and consider the long-term consequences of their behaviors, thus will increase the effectiveness of constructive actions. In the long run, forgiveness can not only improve the subjective wellbeing of the offended, but also help them maintain good interpersonal relationship and win social support and so on [9]. Therefore, people with high self-control will think about things in the long term and tend to adopt forgiveness strategy that help maintain the relationship. Based on this, we proposed hypothesis 2.

H2: Self-control mediate the positive relationship between positive emotions and forgiveness.

2. Method

2.1. Participants

A total of 425 questionnaires were distributed to freshmen and seniors from a university in Guangzhou by using whole-class sampling. 412 valid questionnaires were collected, and the final response rate was 96.9%. Among the valid questionnaires, there are 136 male students and 276 female students between 17 and 23 years old.

2.2. Variables and Measures

2.2.1. Positive Emotions

We used the scale developed by Watson et al [10]. The scale contains 10 emotional descriptors to know the frequency of participants' positive emotions in the recent period. Participants rated the items on a five-point scale ranging from 1 (very slight) to 5 (extremely numerous) (Cronbach's Alpha=0.825).

2.2.2. Self-control

We used the 10-item self-control scale developed by Christian and Ellis [11]. Participants rated the items on a five-point scale ranging from 1 (extremely disagree) to 5 (extremely agree) (Cronbach's Alpha=0.732).

2.2.3. Forgiveness

We adopted the 4-item forgiveness scale developed by Aquino et al [12]. Participants rated the items on a five-point scale ranging from 1 (extremely disagree) to 5 (extremely agree) (Cronbach's Alpha=0.753).

In order to improve scale applicability in college students, participants were firstly asked to recall what kind of offensive events they had encountered in the past period, and then to fill out the questionnaire.

2.3. Procedure

The data was processed by SPSS. Pearson correlation test was firstly used to test the correlations between key variables. Then, we used hierarchical linear regression and Bootstrapping methods to

test the mediation effect in our study.

3. Analysis and Results

3.1. Descriptive Statistics and Correlations

As shown in Table 1, positive emotions had a significant positive relationship with forgiveness($r=.13$), and self-control also had a significant positive relationship with forgiveness($r=.22$).

Table 1. Descriptive statistics and correlations

Variable	M	SD	1	2	3
1. Positive Emotions	3.05	.55	-		
2. Self-control	3.02	.52	.39***	-	
3. Forgiveness	3.12	.73	.13**	.22***	-

Note: *** $p<0.001$, ** $p<0.01$, * $p<0.05$

3.2. The Mediation Effect of Self-control on the Relationship between Positive Emotion and Forgiveness

As shown in Table 2, the regression coefficient of positive emotion to forgiveness is 0.18 ($P<0.01$) in step 2. Hypothesis1 was supported. When self-control was added in step 3, the regression coefficient of positive emotion to forgiveness was 0.07, and the regression coefficient of self-control to forgiveness was 0.30 ($P<0.001$), which indicated that self-control fully mediated the positive relationship between positive emotion and forgiveness.

Table 2. The mediation effect of self-control

Variable	DV = Forgiveness		
	Step 1	Step 2	Step 3
Gender	.12	.13	.16*
Age	.03	.03	.02
Grade	.02	.01	.03
Positive emotion		.18**	.07
Self-control			.30***
R ²	.00	.02	.05
ΔR^2	.01	.02	.04
F	1.20	2.82*	5.68***

Furthermore, Bootstrapping method was used to examine the mediation effect of self-control. The results of bootstrapping analysis ($k=5000$) revealed that the indirect effect was significant, as the confidence interval (CI) did not include zero ($b=0.111$, CI [0.053, 0.181]). While, after controlling self-control, the direct effect of positive emotions on forgiveness was not significant (LLCI=-0.07, ULCI=0.20, include zero). Therefore, we can conclude that the complete mediation effect of self-control is significant, hypothesis 2 was supported.

4. Conclusion

The results show that positive emotions have a significant positive effect on forgiveness. The conclusion in line with Fredrickson's broaden-and-build theory of positive emotions, that is positive emotions stimulate people to be more flexible, open and effective in thinking by expanding their mind, and promote solution of interpersonal problems more active [4]. Besides, this paper also provided a theoretical basis for the bidirectional relationship between emotion and forgiveness, which further explored the mediation mechanism (i.e., self-control).

Self-control represents whether an individual has the ability to regulate and suppress selfish and other negative impulses, and is considered as a key variable in the outcome of behaviors such as

prosocial behavior and altruistic behavior^[8]. People with high positive emotions will have more resources to control their emotions and behaviors, such as present less aggression and act more constructive behaviors (i.e., forgiveness). It helps them to make choices that meet social moral standards and bring long-term benefits to relationships. Thus, this research has great practical implication for highlighting the positive role of self-control in guiding college students to deal with offensive events correctly.

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