

Self-Esteem as a Moderator between Self-Control and Negative Group Influence:

Evidence from a Between-Groups Study

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### Abstract

Self-control contributes to psychological and physical health. This study aims to establish whether self-esteem and group influence contribute to an increase or decrease in self-control. Past research has found that self-control is positively correlated with self-esteem, and negatively correlated with peer pressure. This research hypothesizes that self-esteem will act as a moderating variable between peer pressure and self-control. This study consists of 114 Tulane University students who participated for course credit. This study expects to find individuals with high self-esteem to be less likely to exhibit low self-control after being exposed to adverse peer pressure. This finding may suggest that lowered self-esteem causes individuals to feel socially threatened, and therefore leads them to conform to the group and exhibit less self-control.

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Self-control is a personality trait that has been found to be highly associated with positive life outcomes, both physical and psychological. For example, Daly, Baumeister, Delaney, & MacLachlan (2014) found that individuals with high self-control are often healthier; their research indicated that those with high-self control had lower cortisol levels, slower heart rates, and enhanced longevity. Additionally, they found that having high self-control has psychological benefits, as it was linked with more stable emotions and higher positive affect.

Self-control has also been found to be associated with better academic performance (Duckworth & Seligman, 2005). A longitudinal study by Duckworth & Seligman (2005) showed that self-control was a better predictor of eighth-grade students' final grades than IQ. Their study also indicated that strong self-control is associated with better school attendance and higher standardized test scores. The benefits of self-control have been studied and well-documented by past research; however, little research so far has examined how interacting factors lead to an increase or decrease in self-control. The current study aims to establish how self-esteem and peer influence impact an individual's level of self-control.

This study examines peer influence because past research has suggested an inverse correlation between peer influence and self-control. For example, Higgins & Makin (2004) found that university students were more likely to engage in deviant behavior (software piracy) if they had high associations with deviant peers. This finding is further supported by Meldrum, Miller, & Flexon (2013) who found that individuals with high self-control are less susceptible to peer pressure. The current study aims to expand on past research by establishing directionality and examining whether negative peer influence can lead individuals to have decreased self-control.

However, negative peer influence is likely not the only factor influencing self-control. Past research has found a strong link between self-control and self-esteem (Lee, Cheng, & Lin, 2013). Individuals with both high self-esteem and high self-control were found to have the best overall quality of life, and high self-esteem has been considered a determining factor in future self-control (Lee, Cheng, & Lin, 2013). In the past, self-esteem has been found to operate as a moderating variable, as Vandellen et al. (2012) showed that social rejection leads to declines in self-control only in individuals with low self-esteem. The present research examines if a similar interaction can be found between negative peer influence and self-esteem by examining whether self-esteem acts as a moderating variable between peer influence and self-control.

This research expects to find that individuals exposed to undesirable peer influence will exhibit lower levels of self-control than those not exposed to peer influence. Furthermore, it is hypothesized that peer influence will lead to a larger decline in self-control in low self-esteem individuals than in high self-esteem individuals. Lastly, this research expects to find that despite peer influence, individuals in the high self-esteem condition will exhibit higher levels of self-control than those in the low self-esteem condition.

## Method

### **Participants**

One hundred and fourteen (68 female, 46 male) undergraduate students were recruited from a participant pool at Tulane University. All participants were between the ages of 18 and 23 years, and all were enrolled in a psychology course at Tulane. The majority were White (78%). All students participated in exchange for course credit.

## Procedures

Participants came into the lab individually and met two confederates (one male, one female) at the door. The three knocked on the door and the researcher greeted them and instructed them to follow her into the next room and sit at individual cubicles. In the room there was a food tray set up with fresh, good-smelling cookies. The researcher informed the participant and confederates that there would be a public health experiment involving taste-testing taking place in the room after the current experiment, and to please not touch the food. The participant was then told that the goal of the current study was to test whether working together on an intelligence task yields more effective results than working alone, despite individual IQs. Next, the participant filled out an informed consent form. Then the participant and confederates were given twenty minutes to take a standard IQ test. After the test, the participants and confederate did a filler task (an essay on why he or she chose to attend Tulane) that lasted five minutes while the researcher pretended to score the IQ test. After the task ended, the participant and confederates were given a slip of paper that stated their forged results, designed to make the participant feel either positively or negatively about him or herself. The participant and confederates were then told to move to a center table and sit together. They were given an alternate version of the same IQ test and told that they would now work together on the test so the researchers could study whether the score of the collaborative test was higher than the aggregate average of the three individual scores. After administering the test, the researcher told them to knock on the door when they finished the task and then left the room. Three minutes into the task, in the 'yes' group influence condition, Confederate 1 said: "I'm so hungry... that food is so tempting." A minute after he laughed and said: "Ah, I'm just going to have one..." and started eating the cookies. He then said how delicious the cookies tasted, and Confederate 2 got up and started eating them also. In the 'no' group influence condition, Confederate 1 said: "I'm

so hungry... that food is so tempting,” but he did not proceed to eat or mention the food again. In both conditions, the number of cookies the participant ate was discretely recorded by the confederates. The three then completed the task and the researcher returned to the room and said: “The study is over, I just have to debrief you before you go.” The researcher then asked the two confederates to leave the room, because she “wanted to debrief them separately.” After the two confederates left, the researcher did a manipulation check and then thoroughly debriefed the participant. Because the study involved deception, the researcher asked the participant for permission to use his or her data by having them fill out a form. All 114 participants granted the researchers permission to use their data.

### **Measures**

**Self-Esteem.** To manipulate self-esteem the researcher had the participants take the Stanford-Binet Intelligence Scale and then forged his or her results. The participants in the low self-esteem condition received a paper that read: “You scored 90. On average, Tulane students score 102 and the general population scores 100.” The participants in the high self-esteem condition received a paper that read: “You scored 124. On average, Tulane students score 102, and the general population scores 100.”

**Group Influence.** To manipulate group influence, in the ‘yes’ condition confederates encouraged the participant to eat cookies, whereas in the ‘no’ condition the confederates did not encourage cookie eating.

**Self-Control.** Self-control was measured by the number of cookies the participant ate after explicitly being told not to. Participants who ate one or more cookies were considered to have low self-control, and participants who ate no cookies were ranked as having high self-control.

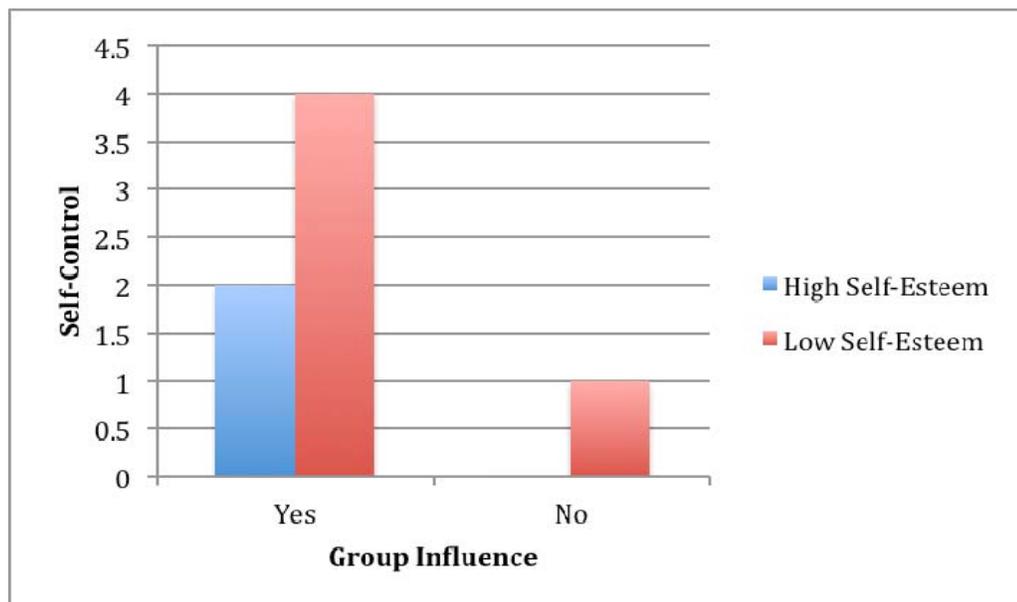
**Manipulation Check.** In order to confirm that the participants were unaware of the

study's actual goals, a manipulation check was administered directly before debriefing.

Participants were asked four questions, including: "Did anything about the study seem unclear or strange?" and "What do you think the true purpose of the study was?" No participants indicated any awareness of the study's actual goals or that the other 'participants' were actually research assistants. Participants were also asked if they could eat the cookies or wanted to eat the cookies. Those who answered 'no' were excluded from data analysis. A total of seven participants were excluded from the final results.

### Anticipated Results and Discussion

The variables in this study were analyzed using a 2 (self-esteem: low, high) X 2 (group influence: yes, no) independent groups analysis of variance (ANOVA) significance test. The expected results indicated that there was a significant main effect of self-esteem and a significant main effect of group influence. Additionally, the expected results revealed a significant interaction between self-esteem and group influence.



Assuming the expected results hold true, this study's findings indicate that participants with low self-esteem are more likely to exhibit low self-control when exposed to negative peer influence. This finding implies that lowered self-esteem may cause individuals to feel vulnerable and insecure, and therefore socially threatened. This feeling of social threat may facilitate a desire to fit in, and thus individuals with low self-esteem may be more likely to conform to others in their group and follow the lead of peers. This suggests that individuals with low self-esteem may be at a greater risk of falling victim to negative peer pressure and thus lowering their self-control. This presents a problem because people with low self-control are more likely to engage in harmful activities such as drug use and cigarette smoking (Daly et al., 2014), actions that are also commonly associated with negative peer pressure. Therefore, individuals with low self-esteem should work to increase feelings of self-worth, as well as avoid peer pressure, in order to increase self-control. Increasing self-control is very important, as it has been associated with better physical health, academic success, and psychological well-being (Daly et al., 2014; Duckworth & Seligman, 2005).

If the expected findings do not hold true, and individuals with low self-esteem are not more likely to exhibit low self-control when exposed to peer pressure, it may suggest that self-control is intrinsically motivated and therefore not vulnerable to group influence. Self-control as the product of intrinsic motivation suggests that individuals exhibit high levels of self-regulation because it causes them to feel a personal sense of reward or satisfaction. Therefore, an individual's degree of self-control would not be affected by the pressure of peers, because they do not care about the external rewards of fitting into the group or appearing 'cool' in front of peers. Instead, exhibiting self-control may lead to a sense of personal accomplishment, and thus a subsequent increase in self-esteem, which may further encourage those in the low self-esteem condition to exhibit self-control after negative peer influence.

This experiment has important implications whether or not the expected results hold true; however, one should express caution before generalizing the results. The sample in this study consisted entirely of undergraduate college students, and therefore the results may not apply to older or less educated individuals. Additionally, the sample was largely White, and therefore should not be readily generalized to other ethnic groups. Furthermore, this study may lack content validity, as the measure of self-control focused entirely on impulse control, and did not examine others aspects commonly associated with self-control, such as self-motivation and emotional regulation. Future research should examine self-control more holistically and use a sample that is generalizable to the population at large.

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