**Coping with the Hard-Knock Life: A Social Intervention Using**

**the Effects of Self-Efficacy on Expectations, Attributions, and Motivation**

College students preparing to kick off their careers by applying for research positions and internships as undergraduates can all probably agree that the job market is incredibly competitive nowadays. With more and more people unemployed, the race for jobs can not only be tiring but also discouraging, as many students get rejected from the first (few) jobs to which they apply. Unfortunately, being rejected commonly enacts a negative chain of events as students experience a loss of self-esteem. As they attribute their inability to secure a job to personal flaws and subsequently lower their expectations for the future, these students usually end up losing motivation and put less effort into the job search process, which only serves to worsen their chances for success.

Previous research has shown that people who continue to persist in the face of adversity are motivated to do so as a result of having an optimistic sense of self-efficacy, which is defined as belief in one’s own capabilities and a sense of control over personal outcomes (Bandura, A. 1994). Self-efficacy influences how people think, feel, and motivate themselves, as people with high personal efficacy are able to remain committed to their goals and bounce back from failure. However, since current research-based models of motivational processes heavily focus on children’s adaptive and maladaptive responses to successes and failures in the academic realm (Dweck, C. S. 1986), our intervention moves beyond motivation in a school setting to motivational tendencies more applicable to post-graduate life.

Due to the influence of self-efficacy on one’s achievements even outside the realm of job searching, we hope to increase students’ levels of perceived self-efficacy in order to positively impact their motivational tendencies. It has been observed that attributions and expectations are both important factors influencing motivation. Attribution theory has been used to understand how attributing causes of events, especially failure, to internal causes like ability is detrimental to later motivation and achievement goals (Wolters, C. A., Fan, W., & Daugherty, S. G. 2013), while expectancy theory has suggested that people put more effort into goals they believe to be attainable based on their expectations (Isaac, R., Pitt, D., & Zerbe, W. 2001). Specific to our investigation, rejection from a job causes students to adopt negative personal attributions and low levels of achievement expectancy. Our intervention seeks to address these issues through raising individuals’ levels of self-efficacy, which will cause them to sustain their efforts in applying to jobs due to heightened positive belief in their abilities, or self-enhancement. Although previous uses of self-enhancement as a theory-based correction process have included a focus on bias manipulation and error reduction (McCaslin, M., Petty, R., & Wegener, D. 2010), the same technique of self-enhancement can be applied to self-efficacy theory as well. Specifically, this is because people with self-enhancing biases that distort in the positive direction believe they have control over outcomes and are more likely to take risks, set higher goals, and expend more effort. Therefore, improving students’ self-efficacy will be a form of self-enhancement that positively impacts their goal-oriented behaviors.

We believe that our intervention can be used to alter participants’ attributional tendencies and expectations through increasing their levels of self-efficacy, and therefore provide them with the motivation to persist in the job search process despite initial setbacks. Our goal is to use previously researched motivational theories to reinforce to students that they should attribute their failure to effort, which is changeable and controllable, rather than ability, and that they should continue to have high expectations for future success regardless of past outcomes. By focusing on increased effort and expecting more from themselves, students will benefit from a high sense of self-efficacy that will improve their confidence and motivational drive despite having experienced a temporary setback and help them regain belief in their own abilities.

Methods

*Participants*

One hundred college sophomores attending Princeton University who have applied for and been rejected for a job position within the past two months participated in this study. The pool was determined from answers to a Career Services survey related to students’ experience with the job search process that was sent out to all sophomores, including a question asking the number of jobs to which the student had applied. Participants were randomly assigned to one of two equally sized groups, the control condition and the intervention condition.

*Measures*

Participants were each given one identical self-esteem survey both at the beginning and conclusion of the experiment. This was a self-reported measure of participants’ self-esteem level, rated on a scale of one to ten (one being very low self-esteem, ten being very high self-esteem). The intervention condition additionally required students to watch a pre-recorded thirty-minute videotape of interviewed Princeton University upperclassman and alumni describing their own experiences with applying for and getting rejected from various job positions. The control condition required students to watch a similar video of the same length, but with upperclassmen and alumni only presenting general tips to aid in the job search process.

*Procedure*

The independent variable being investigated in this study was whether or not the participant underwent the intervention design. After all students filled out the self-esteem survey, participants assigned to be in the intervention condition were brought into a classroom to watch the videotaped interviews that targeted students’ self-efficacy from the perspective of upperclassmen and Princeton alumni. They attributed their failure to insufficient effort and unlucky circumstances in a competitive job market. Their statements encouraged viewers to not lose faith or hope in themselves but to continue applying for jobs because with time and dedication they would be capable of attaining their goals. The speakers recounted their own experiences with failure, followed by redoubled efforts leading to satisfactory results.

The other half of the participants who were randomly assigned to be in the control condition watched a video of the same length of the same upperclassmen simply talking about general skills and tips needed to be successful in the job search process. This “skills and tips” video did not focus on any aspects of attributional or expectancy theories as in the intervention video, and instead only mentioned non-specific guidelines such as dressing appropriately for interviews and informing students of various career counseling and job search assistance resources available to them. Neutral language was used to ensure that participants’ self-efficacy was not influenced.

The experiment was conducted in order to investigate the effectiveness of this intervention in increasing participants’ post-intervention efforts in the job search process. This dependent variable was operationalized as the number of jobs that participants applied for after either watching the “skills and tips” video or watching the motivational intervention video. Moreover, since participants’ level of self-esteem was believed to be the important mediator in this study, a manipulation check was carried out by having participants then complete a self-reported self-esteem survey identical to the one they had received at the beginning of the experiment. Participants were asked to come back exactly a year following the intervention in order to collect information about how many jobs they had applied to within that timespan.

Results

As shown in the Appendix, the recorded results indicate that students who watched the intervention video were comparatively more motivated to persist in applying for a greater number of jobs relative to those who watched the “skills and tips” video. In the control condition, the number of jobs applied to after the experiment on average decreased, from an average of 4.5 jobs applied to before the experiment to 3 afterwards. Contrarily, in the intervention condition, the number of jobs applied to after the experiment on average increased, from an average of 3.5 jobs applied to before the experiment to 6 afterwards (see Figure 1).

In addition, the manipulation check was shown to be successful, implying that participants’ increased levels of self-esteem influenced the results of the intervention. Data collected from self-reported self-esteem surveys indicate that the average level of self-esteem ranked on a scale from one to ten was similar across the board for all participants with no significant difference at the onset of the experiment, with participants in the control condition rating their self-esteem level to be 2.75 and those in the intervention condition rating their self-esteem level to be 2.25. However, at the end of the experiment, participants in the control condition rated their self-esteem at an average level of 2, while participants in the intervention condition rated their self-esteem at an average level of 8.5 (see Figure 2).

Discussion

As predicted, our findings show an increase in motivation and effort when participants were exposed to the intervention video that targeted their levels of self-efficacy. Students applied to a greater number of jobs after watching the intervention video that addressed their attributional explanations of effort and expectancy for success in the future relative to those who simply watched a neutral video that did not have an impact on self-efficacy. As a form of self-enhancement, increased self-efficacy as a result of listening to the advice of currently successful upperclassmen and alumni who formerly encountered similar setbacks caused students to respond by expending more effort than before rather than succumbing to despair. In contrast, those in the control condition did not focus on altering their attributions and expectations, and consequently had low self-esteem and decreased self-efficacy, corresponding to demotivation and applying to a lower number of jobs.

One potential limitation of this study is the perceived value placed on the jobs to which students applied initially. Depending on how much the student wanted the job(s), his or her self-esteem would be impacted to a greater extent if the job was highly valued or a lesser extent if the job was not highly valued. Since the intervention was performed on all sophomores who fit the criteria of being rejected for a job within the past two months, future replications of this intervention should include measures to control for the perceived value of jobs from which students were rejected, which could be included in the initial Career Services survey. In addition, the operationalization of our dependent variable may be problematic, as the number of jobs one applies to does not always necessarily correlate to one’s effort in the job search process. Other factors may impact the decision of how many and which jobs to which students apply.

A recommended direction for future study would be to investigate how such interventions impact long-term motivational tendencies beyond the one year that is tracked in this study. It would be important to research whether students retain an increased self-efficacy in facing other challenges and setbacks in life, and how failures from subsequent job applications are handled even after the intervention. Would post-intervention success set in motion recursive or self-reinforcing processes of adaptive motivation despite early struggles, or would post-intervention failure shatter this merely temporary positive sense of self-efficacy?

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Appendix

*Figure 1.* Average number of jobs that participants applied to both before and after the intervention was conducted in each condition, control and intervention. As illustrated, participants who had undergone the intervention applied to a greater number of jobs relative to the number of jobs they had initially applied to (and had gotten rejected from).

*Figure 2.* Average scores compiled from self-reported self-esteem surveys taken at two times, before and after the intervention, on a scale of one to ten. Self-esteem levels generally remained stable (no significant change) for participants in the control condition while increasing significantly for participants in the intervention condition, validating the manipulation check.