Antipathies and attribution: the effects on self-esteem, self-efficacy, and task persistence

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ANTIPATHIES AND ATTRIBUTION: THE EFFECTS ON SELF-ESTEEM, SELF-EFFICACY, AND TASK PERSISTENCE

By

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ANTIPATHIES AND ATTRIBUTION: THE EFFECTS ON SELF-ESTEEM, SELF-EFFICACY, AND TASK PERSISTENCE

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This study looked at how antipathies and the attributions made to our enemies concerning the outcomes of important life events affect one’s self-esteem, self-efficacy, and task persistence. The results did not support either of the two hypotheses studied. However, it was found that those who succeeded persisted longer on the provided task when attributing the success to their enemy. This could be due to participants believing that they could show up the antipathy, giving them someone to compete against, which in turn lead to higher task persistence. Also, it was found that those who made external attributions while involved with an antipathy got more items correct on the task provided. Making external attributions for events could lead to a desire to prove oneself and in turn increase task persistence.

Key words: antipathies, attributions, self-esteem, self-efficacy, task persistence
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CHAPTER I
INTRODUCTION

From the time we begin to expand our world to include those outside our immediate family, we are expected to meet new people and make new friends. The relationships that we built through our lives are not all the same; many of our relationships have been amiable, such as the friends we made, significant others and other people we see on a regular basis with whom we generally get along. However, it is unlikely that we have gotten along with all of the people we have met. At some point, we were involved in an aversive relationship. These adversarial relationships could have involved social exclusion, bullying, or competition, but the type of aversive relationships of interest to this thesis was one characterized by dislike.

The word antipathy is used to describe a relationship that is based on reciprocated dislike (Abecassis, 2003; Holt, 1989). Antipathies vary across a number of dimensions, including 1) degree of dislike, 2) reciprocity of dislike, and 3) level of interaction. Specifically, the level of dislike can range from a mild dislike to hatred of one’s antipathy. When the relationship is characterized by hate, as apposed to simply dislike, it is considered an “enemyship.” Thus, an antipathic relationship isn’t necessarily an enemy relationship, as an important distinction between antipathies and enemies is the level of dislike involved (Hartup, 2003). Enemy relationships tend to be more intense than other levels of antipathies. These relationships usually go beyond mere dislike to
having hostile feelings or intentions of harming an enemy (Silverstein & Flamenbaum, 1989).

Likewise, antipathic relationships vary in level of reciprocity. When all parties of the antipathic relationship have identified the others as one they dislike to some degree, it is known as a mutual antipathy (Murray-Close & Crick, 2006). Whereas, in some situations, one party didn’t consider the other to be an antipathy, which Abecassis (2003) called a unilateral antipathy.

Lastly, for an antipathy to have been considered a relationship, it must have involved some level of recurring – and often impactful – interactions (Kelley, Bercheid, Christiansen, Harvey, Huston, Levinger, McClintock, Peplau, & Peterson, 1983). The frequency of interaction, and the impact those interactions had on the individual, varies across antipathies. Although, antipathies are a type of aversive relationship, and thus one an individual would have preferred to avoid, it is not always possible to avoid interacting with those we don’t like, particularly if they are connected to some socially required setting, such as coworkers or peers at school.

Relationships fitting this definition are not uncommon across the lifespan. For instance, Rodkin, Pearl, Farmer, and Acker (2003) found antipathic relationships to have been a fairly common occurrence with 20 to 40% of third to fourth grade students involved in one antipathy and 4 to 14% involved in two or three antipathies. Other studies found similar prevalence rates ranging between 15 to 58% of third to ninth graders being involved in at least one antipathic relationship at the time the study was run (Hartup, 2003; Parker & Gamm, 2003; Pope, 2003; Witkow, Bellmore, Nishina, Juvonen, & Graham, 2005). Further, in a recent study of college-aged participants, 94% of the
survey respondents reported having had a mutual antipathy in college or high school (Smith, 2007).

However, despite the fact that antipathic relationships are common, research that has examined these types of relationships is sparse. Many questions remain. Of particular interest to the present proposal is the question of how antipathies have impacted the individual. Some research had shown that aversive relationships could negatively impact traits that are desirable for how we view ourselves, such as self-esteem and self-efficacy (Murray-Close & Crick, 2006), as well as behaviors that could lead to higher achievement, such as task persistence (Ciarocco, Sommer, & Baumeister, 2002). Other research indicated that mutual antipathies had positive impacts on individuals as well (Abecassis, 2003; Smith, 2007). Accordingly, the research question of interest to the present project is how does one glean positive – instead of negative – outcomes from an aversive relationship? To address this question, I started with a review of what we do know about the impact of aversive relationships. I then discussed the theoretical perspective that may shed some light on how antipathies could potentially have positive effects on one’s psychosocial outcomes.

**The Impact of Antipathies**

Given that the research on antipathies is still in its infancy, there was a need to draw on other sources for information. Accordingly, in addition to reviewing the limited research on mutual antipathies, I drew on the related research of ostracism and peer social exclusion. Ostracism, social exclusion, and antipathic relationships all involve some form of social rejection – whether it be rejection by one person as in an antipathic
relationship or rejection by the group as with ostracism (Sommer, Williams, Ciarocco, & Baumeister, 2001).

Antipathies are distinct from but related to ostracism. Whereas ostracized individuals are ignored and can come to feel ‘invisible’ to those around them (Williams, Govan, Croker, Tyna, Cruickshank, & Lam, 2002), an antipathy shows acknowledgement of the individual, albeit in a negative way (Van Beest & Williams, 2006). Likewise, an antipathy is a relationship between people, whereas ostracism is something an individual actually experiences. Even though ostracism and antipathic relationships are different concepts, they aren’t wholly disconnected from one another. Antipathies, may choose to deal with each other by ignoring, excluding, or avoiding the other (Abecassis, 2003).

Thus, ostracism is also a tool that could be used against one’s antipathy (Murray-Close & Crick, 2006). Also, like being ostracized, being involved in antipathic relationships could negatively impact self-esteem and self-efficacy (Murray-Close & Crick, 2006; Williams et al., 2002). Ostracism is of particular importance to this study because some of the findings from ostracism research may shed some light onto the limited information available on antipathies. Ostracism research has found that being ostracized could lead to negative impacts on self-esteem, self-efficacy, and task persistence (Ciarocco, Sommer, & Baumeister, 2002; Williams et al., 2002), all of which were variables of interest in this study.

Antipathies are also related to peer social exclusion (Hartup 2003; Pope 2003) in that socially excluded individuals – those chronically bullied, teased, or neglected by their peers – often have enemy relationships. However, antipathies and social exclusion are not mutually exclusive because socially accepted people can, and do, have adversaries (Hartup 2003; Pope 2003). Nonetheless, research on social exclusion could be used to
inform our understanding of antipathies, given that having an adversarial relationship could feel very similar to acute experiences of social rejection.

In general, most of the research that has been done on antipathies and the related experiences of social rejection or ostracism also has focused on negative impacts which are caused by these encounters (Abecassis, 2003; Hartup, 2003; Parker & Gamm, 2003; Pope, 2003). However, there have been some newer research that have been done focused on potential positive impacts (Smith, 2007). The research on these negative and positive outcomes from aversive relationship experiences was reviewed in turn. Next, attributional theory was discussed as a possible explanation for why negative outcomes are experienced sometimes and positive outcomes other times. Last, the specific goals of the present study were addressed.

**Negative Impacts**

Of the research that has been done on the negative impacts of antipathies, most have centered on the effects that antipathies have on self-esteem. Self-esteem is generally defined as positive feelings we have for our self, feelings of self-worth, or a sense of accomplishment and ability that comes from our successes (Arndt & Schmel, 2003; La Guardia & Ryff, 2003; Kernis, Abend, Goldman, Shira, Paradise, & Hampton, 2005; Mitchell, 2001). Self-esteem is a relatively stable trait; however, it can change in respect to the events going on around person (Newman & Wadas, 1997). A modest amount of research had been done that showed how aversive relationships affect self-esteem. For example, Isaacs, Card, and Hodges (2001) found that among the most common effects of negative peer interactions was low self-esteem. Similarly, research on ostracism had found that being ostracized negatively impacted one’s sense of
belonging, control, and self-esteem (Williams et al., 2002) and increased one’s feelings of anxiety and worthlessness (Fenigstein, 1979). Also, Smith (2007) found that antipathies invoke a heightened sense of awareness through increased attention caused by being viewed as an undesirable object and this heightened self-awareness results in lower self-esteem.

Antipathies affect more than self-esteem. They can negatively affect other aspects of how we evaluate ourselves (Briones, Tabernero, & Arenas, 2008; Sommer & Baumeister, 2002). Unlike self-esteem which is how a person feels about him or her self, in general self-efficacy is the amount of confidence that one has in their ability to perform a certain activity or reach a particular goal (Alavi & McCormick, 2008; Lane, Jones, & Stevens, 2002; Webb & Sheeran, 2008). The amount of self-efficacy one believes to have influences one’s performance on a task (Duncan & McAuley, 1987). The self-efficacy one has is what determines how long one will persist, despite difficulties, towards completing the particular goal or task (Lane, Lane, & Kyprianou, 2004). Self-efficacy is useful in predicting effort and accomplishments in everyday settings. Efficacy’s impact on a person encompasses far more than just being able to do a task. It gives us a sense of control over our life (Hermann & Betz, 2006).

Antipathies could affect self-efficacy both directly and indirectly. Sommer and Baumeister (2002) suggested that those who had higher self-efficacy had strong beliefs in their abilities and particularly those required to achieve the desired outcomes. However, antipathies could affect self-efficacy by taking away a person’s sense of control (Weiner, 2000). When studying the types of impacts enemy relationships had on an individual’s basic needs for control, self-regard, and connection, Smith (2007) found that a negative impact of one’s enemy on one’s need for control and on one’s ability to have purpose and
goals also showed impact in this study. When one’s self-esteem and self-efficacy had been negatively impacted, one is less likely to believe in oneself or one’s abilities. Thus, an individual was likely to make fewer attempts to reach goals or complete tasks which in turn lead to lower achievement (Weiner, 2000).

As antipathies lower a person’s believe in him/herself and his/her abilities that person was less likely to persist on the tasks on which s/he was working (Weiner, 2000). Task persistence is the amount of time one will continue to persist at a given task (Gordon & Bolick, 1979; Gordon, Jones, & Short, 1977; Martinek & Griffith, 1994). Various things could influence task persistence, such as belief in one’s ability to do the task or one’s beliefs in the causes of task outcome (Gordon, Jones, & Short, 1977). When a person feels that s/he determines the outcome of a task through how hard s/he worked, the person would strive longer in that task (Gordon & Bolick, 1979). However, when a person felt that the task outcome was related to his/her ability to do the task, one was apt to give up more quickly – if s/he was able to do this s/he would have gotten it by now (Gordon & Bolick, 1979).

Task persistence has been shown to relate to how successful a person is, particularly in the academic arena (Cordon et al., 1977). However limited research had been done on task persistence with regards to aversive relationships. What had been done centered around ostracism. In a study by Ciarocco, Sommer, and Baumeister (2002), it was found that ostracizing a person lead to significantly lowered task persistence both on an impossible task and on physical stamina. Similarly, Sommer and Baumeister (2002) found that being ostracized, especially for those with low self-esteem, also lead to lower task persistence. Though these studies were done on ostracism, the
results may be generalizable to antipathic relationships since both antipathic relationships and ostracism are rejection experiences.

**Positive Impacts**

In spite of the bulk of research on antipathies being focused on the negative results of antipathic involvement, some research has revealed positive outcomes from these relationships. The current study is a branch off of an earlier study done by Smith (2007). In Smith’s study some positive effects were found from antipathic involvement. Specifically, she found that antipathy involvement can have positive effects on one’s need to belong, thus strengthening relationships and possibly forming new relationships based on the dislike of a mutual acquaintance (e.g., “my enemy’s enemy is my friend”). Smith found that as antipathies impact increased, participants’ friendship quality and perceived social support increased. She also found that participants considered their antipathy someone they would strive against to attain a goal. Thus, to some extent, having an antipathy was related to greater task persistence.

Finding positive effects of antipathies is not limited to Smith’s study. Other researchers have found unexpected positive outcomes for those involved in an antipathy. Those involved in an antipathy will band together with friends for support and affirmations; this allows friends to form strong bonds against the antipathy (Abecassis, 2003). Another positive outcome comes from externalizing negative or unwanted aspects of the self onto an antipathy. By projecting these unwanted personal traits, it allows a person to deal with these parts by disliking them in another person rather than in his or herself (Abecassis, 2003). Furthermore, antipathies allow for competition, giving us
something to strive against and motivation to improve ourselves or to defeat the enemy (Abecassis, 2003).

A study by Pope (2003) also yielded some unexpected interactions which could be generally protective. Pope found that children involved in antipathies were found to have lower aggression in some cases, and girls who were generally liked by their peer group were more likely to have increased peer liking the year following having an antipathy. In this same study, Pope (2003) hypothesized that children involved in antipathies would exhibit depression, sadness, and anxiety; however, this was not statistically supported. Thus, he found more positive outcomes from involvement in a mutual antipathy than negative.

**Attribution Theory**

In sum, research on mutual antipathies shows that these relationships can have both positive and negative impacts on an individual. What is not known is what determines whether one gleans positive or negative outcomes from these aversive relationships. Accordingly, the purpose of the present study is to examine one possible explanation. It is thought that making external attributions to an antipathy concerning unwanted outcomes of an event will mediate the negative outcomes for antipathic involvement.

Attribution theory states that when another person engages in an unwanted or unforeseen manner towards us, we seek for a reason for the behavior (Bradfield & Aquino, 1999). Attributions allow us to form explanations around behaviors and events, and allow us to determine why the event or behavior occurred, if it will reoccur and what can be done to decrease or increase the likelihood of reoccurrence (Coffee & Rees, 2008).
It is from this search for a reason that we assign the amount of blame onto ourselves (e.g., making “internal” attributions) or onto the situation, including, potentially, another person (e.g., making “external” attributions) (Bradfield & Aquino, 1999; Weiner, 2000). Midkiff and Burke (1991) found that causal attributions can influence changes in a person’s view of him or herself. Causal attributions allows people to protect and enhance themselves by controlling the amount of responsibility that they have for the even in their life. Attributing positive things internally and negative things externally leads to higher self-esteem (Chandler, Sook, & Pengilly, 1997).

People can use attributions to protect themselves by controlling the amount of responsibility that they have in their lives (Chandler, Sook, & Pengilly, 1997). Attributions work for us in a two-fold way. When we make external attributions after negative events, it allows us to protect ourselves by disconnecting from the undesirable outcome. Internal attributions following success serves to enhance ourselves by suggesting that the desirable outcome was achieved because of us or despite limiting conditions (Kernis, Grannemann, & Barclay, 1992; Wisniewski & Gaier, 1991). A number of studies have found that allowing people to make attributions concerning an undesirable outcome or feedback mediates the effects of this negative event on the person (Eisenstadt, Hicks, McIntyre, Rivers, & Cahill, 2006; Kernis et al., 2005; Kernis, Grannemann, & Barclay, 1992; Major, Kaiser, & McCoy, 2008; Midkiff & Burke, 1991). Accordingly, allowing for attributions of negative feedback to external causes may negate the lowering of self-esteem that can often accompany a failure (whether that failure is individual or interpersonal). In Sommer et al.’s (2001) study they found that not being able to make external attributions for being ostracized predicted loss in a person’s need to belong and self-esteem. Likewise, Eisenstadt et al. (2006) found that the effects of
negative feedback were mediated when participants were allowed to make counterarguments – specifically when they were encouraged to make external attributions for the feedback they received.

When people view themselves, they desire to have as positive of a self-view as they can achieve (Kernis et al., 1992). Attributions are generally used to maintain or enhance our self-perceptions (Mitchell, 2001). However, when dealing with other people, particularly those they do not like, we will attribute positive outcomes to ourselves and attribute negative outcomes to the other person to enhance and protect the self (Fenigstein, 1984; Mitchell, 2001). Accordingly, this might explain the positive effects that have been found in antipathy research. Being able to use the antipathy as a scapegoat may provide the protection needed to negate the negative impact that antipathies have on self-esteem, self-efficacy, and task persistence.

Present Study

In the present study, I examined how antipathic relationships affect a person’s self-esteem, self-efficacy, and task persistence. Additionally, I investigated if making external attributions can mediate any negative effects that antipathies have on the above variables. To examine how antipathies affect psychosocial outcomes, four scenarios were developed along with a modified self-esteem, self-efficacy, and mood surveys.

For the purpose of this study, main effects for relationship type (antipathy, control) and outcome (success, failure) were hypothesized because it was felt that the interaction of variables would better explain how we are affected. It would not have been surprising to get main effects; however, it was the interaction of the variables that were of interest. It was first hypothesized that there would be an interaction between outcome
and attributions, such that those making internal attributions for success would score highest on measures of self-esteem, self-efficacy, and task persistence, and those that made internal attributions for failure would score lowest on the same measures. It was also hypothesized that there would be a three-way interaction between relationship type, outcome type, and attribution type, with those in the antipathy condition that made external attributions following failure scoring comparably, if not better, than others who failed or who had enemies. This three-way interaction was expected because it was anticipated that although the presence of an enemy tends to have negative consequences, an enemy could make it easier for the individual to construct external attributions for their failure to get the desired job when an enemy who may have sabotaged them was present. Also, succeeding despite the presence of an enemy may also be a little sweeter, as success can be the best revenge.
CHAPTER II

METHODS

Participants and Design

This experiment was a 2(relationship: antipathy, control) x 2(outcome: job, no job) x 3(attribution: make internal, make external, make no attributions) experimental survey design. Four hundred and twenty-nine individuals were recruited. Two participants were eliminated for random answering. Another 65 participants were eliminated for not following the instructions as evidenced by how they responded to the comprehension and priming questions. Participants were recruited from introductory psychology courses at Mississippi State University. They consisted of 60% white, 51% male, and an average age of 19 years old.

Materials and Procedure

This study involved reading a scenario, completing some comprehension, priming, and dependent variable questions, and attempting a task. Using block randomization, participants were randomly assigned to one of the 12 possible conditions when they show up for the study. They choose a date and time to come in. When the participant arrived they were invited into a classroom. The consent form was given to each participant, and then the researcher explained the consent form and gave the participants a chance to read and sign it. After the consent forms had been collected the researcher passed out packets containing the stimulus materials, comprehension and priming questions, dependent variables, and a filler task and was asked to complete the
materials. Participants were tested in groups, however, each received their own packet to fill out. After completing these materials, they were given the persistence task.

**Stimulus Materials: Scenario**

The stimulus materials consisted of one of four possible scenarios for the participants to read. These scenarios described that they had graduated and had been searching for a job for a while. They managed to find their ideal job and had made it through all but the final set in the job selection process – an in-person interview. They go in for the interview to find one of two conditions – 1) an old acquaintance that they didn’t like talking to the interviewer or 2) an employee talking to the interviewer while they wait for their turn for the interview. At the end of the scenario they received a phone call a few days later informing them that they either 1) did or 2) did not get the job, see Appendix A. Comprehension questions followed the scenario that ask participants to describe in their own words what happened, what they wanted, how successful they were in getting what they wanted, and what they would feel, think, and do given the scenario. These items were used to make sure that the participants read and understood the scenario but are not used as an assessment measure.

**Stimulus Materials: Attribution**

Three questions followed the scenario. In the external attributions condition the three questions were used to activate external attribution making. These items consisted of the following questions: How responsible is the acquaintance/employee for the outcome of the scenario? 1 = *Not responsible* to 5 = *Totally responsible*. What outside factors contributed to the outcome of this scenario? What did the acquaintance/employee do that attributed to the outcome of the scenario? The same was done in the internal
attributions condition to encourage internal attribution making. These items consisted of the following: How responsible are you for the outcome of the scenario? 1 = Not responsible to 5 = Totally responsible. What could you have done to change the outcome of this scenario? What did you do that attributed to the outcome of the scenario? In the control condition three benign questions were used to avoid attribution making. These consisted of the following items: Have you ever been in a situation like this before? Can you see being in such a situation? How might thing be different in the future should you find yourself in this kind of situation?

**Dependent Variables**

Following the attribution manipulation, participants were administered a packet that consists of 50 items to measure self-esteem, self-efficacy, and task persistence. Items from this packet were based on Rosenberg’s (1969) 10-item Self-Esteem Survey, Beck’s (1996) Depression Inventory – II, Schwarzer and Jerusalem’s (1995) Generalized Self-Efficacy Survey, and a general task persistence questionnaire developed for the purpose of this study. A pilot study was run to determine which items to be used from each of these scales. All items are self-report on a 1 = not true of me to 5 = very true for me point Likert scale.

**Self-esteem/depressed Mood**

Six items were based on Rosenberg’s self-esteem survey. Items include “I would be satisfied with myself” and “I would be able to do things as well as most other people.” Two reverse scored items include “I would think I am no good at all” and “I feel I do not have much to be proud of.” Based on the pilot study, this scale had a Cronbach’s alpha of .77. Eleven items were based on Beck’s Depression Inventory – II. Items include “I
would still have the same interest in my activities” and “I would be full of energy.”

There are nine reverse scored items including “I would feel I am being punished” and “I
would feel sad or ‘bummed out’.” These two scales were analyzed and found to be
measuring the same concept. After further study it was determined that these two scales
were measuring depressed mood more than self-esteem. The mean was computed; higher
scores indicated lower self-esteem. Based on the pilot study, this scale had a Cronbach’s
alpha of .88 for the mood scale. After combining these scales for this study results
yielded a Cronbach’s alpha of .91.

**Self-efficacy**

Thirteen items were based on Schwarzer and Jerusalem’s Generalized Self-
Efficacy Survey. Such items included “I can always manage to solve difficult problems
if I try hard enough” and “When I am confronted with a problem, I could find several
solutions.” The mean was computed; lower scores indicated lower self-efficacy. Based
on the pilot study, this scale had a Cronbach’s alpha of .98. This study yielded a
Cronbach’s alpha of .90.

**Task Persistence Measurement**

Before the task persistence exercise was administered, a filler activity was given.
The filler was a low-difficulty word search sheet that was given to fill any gaps in time
while waiting for other participants to finish the above materials. Since not all
participants finished at the same time, this activity was used to keep participants occupied
until all participants finished their packets so that the impossible task, described below,
could be administered at the same time to everyone to make timing easier and more
accurate.
Once all the participants had completed the questionnaire packet, the researcher stopped them and collected the packets. Next, task persistence was assessed by measuring how long the participant worked on an impossible task. The research gave each participant the impossible task and informed them that when they were finished to bring the task up to her. The impossible task was a 40-item word scramble task that could not be competed in that half of the questions have no answer. This task was created for the purpose of this experiment but was modeled after normal word scramble tasks. Impossible tasks such as this have been used in past studies to measure task persistence (Ciarocco, Sommer, & Baumeister, 2009; Sommer & Baumeister, 2002). This task was used to measure task persistence by timing how long the participants worked on the task. The researcher told the participants to begin the task and started timing them. Participants were given a maximum of 15 minutes to work on the impossible task. After the participants gave up on the task and turned it into the researcher or were told that time was up, they were debriefed and given credit for their participation. The items completed accurately on the impossible task were summed, with more accurate responses indicating greater task persistence. Likewise, time was also used as an indicator of task persistence with more time spent on the task also indicating more task persistence.
CHAPTER III
RESULTS

The purpose of this study was to study antipathic relationships experimentally. In particular we were interested in how making attributions within one of these relationships affects a person’s self-esteem, self-efficacy, and task persistence. It was hypothesized that there would be an interaction between outcome type (Job or no Job) and attribution type (Internal, External, or None), with those who made internal attributions for success scoring highest on measures of self-esteem, self-efficacy, and task persistence, and those who made internal attributions for failure would score lowest on these measures. It was further hypothesized that there would be a three-way interaction between relationship (Antipathy or Control), attribution, and outcome. Specifically it was anticipated that those in the antipathy condition who made external attributions following failure would not show the same negative impacts of having an enemy relationship as would those who made internal or no attributions for failures.

Before testing the hypotheses the participant’s response to the comprehension questions were assessed. Sixty-five participants were eliminated due to inappropriate responding to the comprehension and priming questions. These questions asked participants to describe the scenario, what happened, what the goal was and how they would think and feel given the situation. Participant failing to accurately respond (e.g. saying they got the job when they didn’t or refusing to answer a question) were eliminated. After eliminating these participants, cell sizes ranged from $n = 29$ to $n = 42$. 
participants. Three priming questions were then assessed. Those refusing to make the appropriate attributions asked for (e.g. insisting the antipathy had nothing to with the scenario) were also eliminated. Two other participants were eliminated for random responding, these participants did not read the questions, instead they just circled the same letter on the Likert scale for all the questions. The remaining 362 participants were used to run all statistics.

Prior to final statistics being run, a principal components factor analysis (using an eigenvalue of 1.5 and using a varimax rotation) was run on the items used to measure self-esteem, depressed mood, and self-efficacy. See Table 1. The factor analysis yielded two factors accounting for 45 percent of the variance. It turned out that self-esteem items did not load on a separate factor, but rather loaded on either “self-efficacy” or “depressed mood” factors. For example, the results of the factor analysis indicated that two items for self-esteem and one item for mood were actually measuring the same concept as the self-efficacy items. The other four self-esteem items were measuring the same concept as depressed mood. As such, the one depressed mood item was reverse scored and combined with the two self-esteem items to the self-efficacy scale. The items were assessed and decided to be measuring self-efficacy and not mood as the other items were. Likewise, the other four self-esteem items that loaded on the depressed mood scale were reverse scored and combined with the depressed mood items to make one scale. After reviewing the items it was decided that this factor was measuring depressed mood. Higher scores on this scale indicated higher levels of depressed mood reported. The resulting self-efficacy and depressed mood scales were significantly negatively correlated with each other ($r = -0.486$, $p < .000$).
Table 1

Factor Analysis of Self-esteem, Mood, and Self-efficacy Scales

<table>
<thead>
<tr>
<th>Item</th>
<th>Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Depressed mood</td>
</tr>
<tr>
<td>13. I would feel irritable</td>
<td>.86</td>
</tr>
<tr>
<td>8. I would feel discouraged about my future</td>
<td>.84</td>
</tr>
<tr>
<td>12. I would feel restless or agitated</td>
<td>.82</td>
</tr>
<tr>
<td>7. I would feel sad or “bummed out”</td>
<td>.79</td>
</tr>
<tr>
<td>11. I would feel like a failure as a person</td>
<td>.76</td>
</tr>
<tr>
<td>1. I would be satisfied with myself</td>
<td>- .68</td>
</tr>
<tr>
<td>16. I would feel worthless R</td>
<td>.68</td>
</tr>
<tr>
<td>17. I would be full of energy</td>
<td>.68</td>
</tr>
<tr>
<td>2. I would think I am no good at all</td>
<td>.65</td>
</tr>
<tr>
<td>10. I would have lost confidence in my abilities</td>
<td>.63</td>
</tr>
<tr>
<td>9. I would feel I am being punished</td>
<td>.62</td>
</tr>
<tr>
<td>6. I would take a positive attitude towards myself</td>
<td>-.60</td>
</tr>
<tr>
<td>15. I would have a hard time making decisions</td>
<td>.49</td>
</tr>
<tr>
<td>4. I feel I do not have much to be proud of</td>
<td>-.48</td>
</tr>
<tr>
<td>25. When I am confronted with a problem, I could find several solutions</td>
<td>.69</td>
</tr>
<tr>
<td>22. Thanks to my resourcefulness, I could handle unforeseen situations</td>
<td>.68</td>
</tr>
<tr>
<td>26. If I am in trouble, I could think of a good solution</td>
<td>.68</td>
</tr>
<tr>
<td>21. I am confident that I could deal efficiently with unexpected events</td>
<td>.67</td>
</tr>
<tr>
<td>23. I could solve most problems if I invested the necessary effort</td>
<td>.67</td>
</tr>
<tr>
<td>27. I could handle whatever comes my way</td>
<td>.65</td>
</tr>
<tr>
<td>18. I can always manage to solve difficult problems if I try hard enough</td>
<td>.63</td>
</tr>
<tr>
<td>20. I am certain that I could accomplish my goals</td>
<td>.61</td>
</tr>
<tr>
<td>3. I would be able to do things as well as most other people</td>
<td>.60</td>
</tr>
<tr>
<td>30. I will have the skills and knowledge necessary to work effectively at this place of employment</td>
<td>.60</td>
</tr>
<tr>
<td>19. If someone opposes me I could find the ways and means to get what I want</td>
<td>.57</td>
</tr>
<tr>
<td>24. I could remain calm when facing difficulties because I could rely on my coping abilities</td>
<td>.57</td>
</tr>
<tr>
<td>5. I would feel that I am a person of worth, at least as much so as others</td>
<td>.52</td>
</tr>
<tr>
<td>28. I could acquire another job that is similar to this one</td>
<td>.50</td>
</tr>
<tr>
<td>29. I could work in this environment</td>
<td>.47</td>
</tr>
<tr>
<td>14. I would still have the same interest in my activities</td>
<td>-.44</td>
</tr>
</tbody>
</table>
Furthermore, indices used to gauge participants’ task persistence (time spent on the task, number of items completed, and items completed correctly) were significantly positively correlated with one another. Time on task was positively correlated with the number of items completed ($r = .162, p = .002$) and the number of items correct ($r = .345, p < .000$), also number of items completed were correlated with number of items correct ($r = .221, p < .000$).

**Hypothesis Testing**

The hypotheses were tested using a MANOVA with relationship type (antipathy or control), outcome type (job or no job), and attribution type (internal, external, or no attribution) as the independent variables and depressed mood and self-efficacy as the dependent variables. A second MANOVA was also run with the above independent variables and the three measures of task persistence (time spent on the task, number of items completed, and items completed correctly) as the dependent variables.

Main effects were not hypothesized in this experiment, however, the first MANOVA revealed that showed there were main effects for outcome type (Job vs. No Job) (Wilks’s Lambda (2, 349) = 112.101, $p < .000)$ at the multivariate level. Follow-up univariate analyses revealed that this main effect was consistent for both self-efficacy and depressed mood, $F(1, 350) = 130.77, p < .005, \eta^2 = .24$ and $F(1, 350) = 8.20, p < .005, \eta^2 = .019$ respectively. Results showed that participants obtaining the job ($M = 4.28, SD = .49$) reported higher self-efficacy than those who did not obtain the job ($M = 4.07, SD = .53$). Likewise, participants who got the job ($M = 1.51, SD = .53$) had lower depressed mood scores than those who didn’t get the job ($M = 2.53, SD = 75$).
A marginally significant main effect was found for relationship type at the multivariate level as well (Wilks’s Lambda (2, 361) = 414.0, \( p = .064 \)). However, these effects were nonsignificant at the univariate level for depressed mood (\( F(1, 361) = .52, p = NS \)) or self-efficacy (\( F(1,361) = .23 p = NS \)). No main effects were found for attribution type nor were any significant main effects revealed in the second MANOVA with the task persistence dependent variables.

It was hypothesized that there would be an interaction between outcome and attribution on all dependent variables. The MANOVA run on depressed mood and self-efficacy did not reveal any significant interactions at the multivariate level (Wilks’s Lambda (4, 698) = 2.06, \( p = NS \)), though there was a marginal interaction for depressed mood at the univariate level \( F(1, 350) = 2.51, \eta^2 = .012, p = .08 \). As seen in Figure 1, overall those who didn’t get the job scored higher on depressed mood than those who got the job, regardless of attributions made. However, there was an even stronger difference when it came to whether individuals made internal attributions for that success or failure, such that, consistent with hypotheses, those making internal attributions for success were less depressed than those making internal attributions for their failures. Yet, these results were only marginally significant, perhaps because of the strong difference between the job vs. no job conditions; this interaction must be interpreted as a trend at best. The MANOVA for task persistence also revealed no significant differences at the multivariate or univariate levels thus the hypothesis that there would be an interaction between outcome and attribution was not supported.
Figure 1. Two-way interaction between outcome and attribution type for depressed mood

Note: Participants who made internal attributions for getting the job reported less depressed mood than those making internal attributions for not getting the job.

It was also hypothesized that there would be a three-way interaction for outcome type, relationship type, and attribution type with those in the antipathy condition who made external attributions following failure would score comparably, if not better, than those in other failure conditions or potentially in other enemy conditions. The MANOVA ran on self-efficacy and depressed mood did not support this at the multivariate level (Wilks’s Lambda (4, 698) = .176, $p = NS$) or at the univariate level for measures of self-efficacy and depressed mood, $F(2, 350) = NS$, and $F(2, 350) = NS$, respectively. The MANOVA ran on the task persistence items also did not support this hypothesis at the multivariate level (Wilks’s Lambda (6, 698) = 1.29, $p = NS$). The univariate level also did
not reveal any significance for time spent on task \( F(2, 350) = NS \) or items correct \( F(2, 350) = NS \). However, there was a significant three-way interaction found for task items attempted \( F(2, 350) = 3.33, \eta^2 = .11, p = .03 \). Least Squares Difference post hoc analysis further revealed that those in the antipathy condition who got the job and made external attributions for success (AJE condition) \( (M = 12.91, SD = 2.89) \) attempted significantly more items than those in the following conditions; AJI (antipathy-job-internal) \( (M = 8.25, SD = 2.10, p = .027) \), AJN (antipathy-job-none) \( (M = 8.52, SD = 2.09, p = .036) \), ANI (antipathy-no job-internal) \( (M = 8.54, SD = 2.10, p = .038) \), ANE (antipathy-no job-external) \( (M = 8.36, SD = 2.08, p = .03) \), and ENI (control-no job-internal) \( (M = 8.11, SD = 2.09, p = .02) \) conditions. There was also a marginal difference between the AJE condition and those in the ENN (control-no job-none) \( (M = 9.21, SD = 2.01 p = .067) \) condition, with those in the AJE condition attempting more items. The condition of interest, those who were in the antipathy condition who make external attributions for not getting the job did not score differently than all other conditions save the AJE condition.
Figure 2. Three-way interaction for task items attempted

Note: Participants in the antipathy condition who made external attributions, attempted more items on the impossible task than participants in any other condition.

Additional Findings

There was one additional finding. There was a marginal two-way interaction found at the univariate level with relationship type by attribution type for task items correct (F(2, 350) = 2.47, p = .085, η² = .012). An LSD post hoc analysis revealed that those in the antipathy condition who made external attributions (M = 2.53, SD = .26) got more items correct than any other condition (antipathy-internal (M = 1.94, SD = .26, p = .02) and antipathy-no attributions (M = 1.84, SD = .25, p = .008)). Likewise, they also answered more items correctly than those in the control condition who made external attributions (M = 2.00, SD = .26, p = .04) or those who made no attributions (M = 1.94, SD = .25, p = .01). Accordingly, it seemed as if having an enemy that one acknowledged
as potentially playing a role in one’s outcomes – be they bad or good outcomes – increased task performance.

![Graph showing two-way interaction for task items correct](image)

**Figure 3.** Two-way interaction for task items correct

*Note:* Those in the antipathy condition who made external attributions got significantly more items correct than those in all other conditions save the control condition who made internal attributions.
CHAPTER IV
DISCUSSION

In sum, the analyses did not support the majority of the hypotheses. Results revealed that the anticipated two-way interaction of attribution and outcome was only marginally significant for one dependent variable and the anticipated three-way interaction did not result in quite the expected differences. The condition of interest didn’t differ from the other conditions, making interpretation unrealistic. Lastly, an additional interaction between attribution type and relationship was found.

Main effects were found, such that those who got the job (succeeded) were happier and more confident than the participants that did not get the job (failure). This outcome, though not discussed given the focus on the interactions, is not surprising. The results showed that those who got the job scored higher on our measure of self-efficacy and lower on the measure of depressed mood. Thus, the effect of the positive outcome is not contingent upon the attributions individuals make for why that outcome occurred. Simply getting the job makes one feel a little better than not, which is not entirely surprising.

Hypotheses

The first hypothesis, that there would be a two-way interaction between outcome and attribution type with those making internal attribution for success scoring most positively and those making internal attributions for failure scoring most negatively, was largely not supported. There was, however, a marginally significant two-way interaction
of attribution and outcome for depressed mood found which showed that those who made internal attribution for getting the job scored lower on depressed mood than those who didn’t make attributions for getting the job. Though this wasn’t significant it is a trend that is partially supportive of the first hypothesis. Thus there is some support for the idea that attributing successes to ourselves can make us feel better about ourselves, but ultimately, obtaining the favorable outcome, regardless of the attributions made for it, accounted for most of the difference between responses.

The second hypothesis, that there would be a three-way interaction between relationship type, outcome, and attribution type with those in the antipathy condition who made external attributions for not getting the job (ANE) scoring comparably or higher than those who got the job, could be seen as not supported. Though, note, as worded, the ANE condition could score *comparably* to other conditions, and this was evident, but not all that remarkable as conditions that should have been different (e.g., where one made internal attributions for a failure or had an enemy) were also “comparable.” The only significant three-way interaction found was for the measure of items attempted. The results showed that those in the ANE condition were comparable to those who got the job or made external attributions for failure, however, they were also comparable to those who didn’t get the job and all the other attribution possibilities. In fact this condition only scored differently from one other group, those in the AJE condition. The only difference between these two conditions is that the condition of interest didn’t get the job and the AJE group did. Most of the conditions were similar to the other conditions, but there was one group that stood out – the AJE condition. In the AJE (antipathy-job-external) condition, individuals attempted the most items and scored significantly higher than the other conditions.
Thus, for some reason, when forced to attribute one’s success to external factors in a situation where an enemy could have influenced one’s outcome, individuals worked a little harder. This may be due to a desire to prove that they had the skills to earn the job despite circumstances, thus they could reassure themselves that a success wasn’t really due to ‘outside’ forces – especially inimical outside forces. Accordingly, this might indicate that not all types of external attributions are created equal. Making external attributions to negative factors for positive outcomes could hold different consequences than making external attributions to positive factors for positive outcomes, or internal attributions of any sort.

This single three-way interaction was not the only evidence of some influence of enemies. Lastly, there was an unanticipated but marginal effect found for the how many items individuals got correct on their task. Post hoc analysis showed that those who made external attributions in light of an antipathy completed the most items correctly. It could be that having to make external attributions for any outcome, especially if having to attribute one’s outcome to an antipathy, gives one additional incentive to perform well to restore a sense that one can take control of one’s future outcomes. Thus, in keeping with the prior interpretation, it seems to make some difference how external attributions are made. Attributing outcomes to an antipathy results in different responses than attributing outcomes to other external factors. Antipathies may motivate us to work harder and perform better.

**Limitations**

However, all of these discussed results should be taken with a grain of salt. Many were marginal effects or only significant when using simple effects post hoc.
comparisons. The lack of statistical significance was unexpected. A pilot study had been run initially. In this study the scenarios developed were tested and the scales were improved. This pilot study showed hypothesis-consistent significant differences between the conditions. Though the pilot study proved promising, this promise didn’t follow into the current study. Despite pilot testing, the lack of significance found in this study may be due to the antipathy manipulation not being strong enough. The manipulation was based on the participants assuming that the antipathy actually did something that affected the person getting the job or not. There were 65 participants that were eliminated from the study for failure to assume this, as was indicated by their responses on the manipulation questions. It is possible that those included could also have failed to fully utilize the other person as a possible scapegoat. Future research will want to strengthen this manipulation by possibly forcing participants to blame the other person instead of asking the participants to do so.

This study was in an experimental survey format, as such, the degree to which the participants put themselves into the scenario is uncertain. Creating a situation in a lab setting (e.g., having a confederate act as an enemy) and observing real-time behavioral responses might have resulted in stronger effects than found using vignettes. Ostracism and rejection research have created the experience of rejection in the lab through activities such as everyone disagreeing with the participant or the group excluding the participant in a task or activity. Creating an antipathy in the lab would be trickier however, because it would require developing a situation which would get participants to perceive dislike and reciprocate. To determine the amount of dislike reciprocated would be difficult. Likewise, eliciting such feelings in participants while having them interact with their antipathy could have ethical repercussions. Generally speaking it is unknown
at this stage if creating an antipathy would compare with ‘imagining’ or placing yourself in the situation. Results would likely be more realistic if an actual antipathy could be created in a controlled setting and behavioral responses examined. However, stronger manipulations such as those mentioned or being more forceful in having the participants attribute outcomes to the target (themselves or another) could improve research outcomes even within the limitations of a vignette design. It might be possible to illicit the level to dislike for the antipathy in a vignette by priming the participant before hand, having them think about someone in their past they really didn’t like. Having participants think about their past experiences with this person, what s/he did to the participant, and how it made them feel prior to running the experiment could lead participants to read more into the described antipathy’s behaviors and intentions.

**Future Research**

Admittedly, these interpretations are ad hoc as the results were largely unanticipated. Thus, the results of this study have to be approached with caution. Just because there was little support for the hypotheses this doesn’t necessarily mean that there is no effect. Rather, the lack of significance could indicate simply that the methods I used to conduct this research were unable to find the anticipated results, which is why further research is needed. For the purposes of this experiment, along with future research, it would be prudent to establish causally the main effects that enemies have in comparison to friends (as opposed to a neutral person as used in the present study) for both positive (strengthening relationships and driving one to work harder to succeed) and negative psychosocial outcomes (lowering self-esteem and the belief we have in ourselves). Establishing this basic difference between friendships and enemyships
experimentally could prove useful as it has only been looked at non-experimentally to date, thus it is difficult to parse whether depressed persons garner more enemies or enemies make one more depressed.

Despite none of the hypotheses being fully supported there are some things that can be drawn from the results of this study. Having main effects not otherwise explained by interactions suggested that the outcome of success or failure had a stronger impact on mood and self-efficacy alone than in combination with our other variables of interest. This might seem contrary to attribution research that would argue how individuals “made sense” of the situation should affect how positively or negatively the outcome affected them. It may be that the self-serving bias was so strong that simply because individuals were assigned to a particular attribution condition for their outcomes doesn’t mean that they didn’t still make unreported internal attributions for successes and external attributions for failures. Possibly providing the participants the opportunity to list what they felt most likely lead to the outcome without being asked to respond a certain way might provide a more accurate classification of attribution type.

Though not significant, there was a marginally significance effect of outcome by attribution on depressed mood found. As expected, making internal attributions for success resulted in marginally lower depressed mood and making internal attributions for failure resulted in higher depressed mood. Further testing with stronger attribution manipulations or creating an antipathy is needed, however, to determine whether this trend can be more than marginal.

Furthermore, research looking at the more unexpected finding would be beneficial. It was found that making external attributions for one’s outcomes when in the presence of an enemy resulted in participants persisting longer on a subsequent
impossible task compared to those making internal attributions or no attributions. It could be that making attributions to things outside of ourselves could lead us to try harder so that we may ultimately prove to ourselves or others that the outcome either was due to us (a positive outcome) or that we could do better and therefore not due to us (a negative outcome). Similarly, the unexpected finding, that participants completed more items correctly when making external attributions with an antipathy involved than when one was not involved or when making internal or no attributions, would be good to understand better. It may be that we want to be better than those we don’t like, but further research would shed more light on these.

This study did not yield the results that we were expecting. However, it did point out a possible effect of antipathies that wasn’t previously thought of. It was interesting to find that those making external attributions for a positive outcome to an antipathy actually proved to be protective, leading participants to work harder and do better. This will hopefully spark future experimental research, both on antipathic relationship in general, as what little has been done in this area is correlation, as well as specifically to this finding. It would be interesting to see if this is an effect that is found only when attributing a positive outcome to someone we don’t like or if assigning responsibility to any form of aversive thing or event.
REFERENCES


APPENDIX A

SCENARIOS
Scenario #1: Antipathy job failure condition
You have finally graduated with your bachelors in your chosen field and have been out looking for a job for months. Your student loans are coming into repayment soon and the condition of the job market has you really worried. You finally find an entry level position and on top of that it is perfect for you, it is your dream job, the whole reason you went into the field you did was to do this kind of work, not to mention that the position pays extremely well and has lots of opportunity for promotion. You have completed the first two rounds of the hiring process and are called in for the final round, which is an in person interview. You get to the hiring office and you see an old acquaintance that you really didn’t like all that well talking to the interviewer. Your acquaintance notices you and turns back to the interviewer and says a few last things before leaving the office. You are called in and proceed with the interview which you felt went pretty well. During the interview the interviewer informs you that your acquaintance told him that you had poor work performance and were generally undependable and then gave you the opportunity to comment. A couple days later you get a phone call from the interviewer informing you that you did not get the position.

Scenario #2: Antipathy job success condition
You have finally graduated with your bachelors in your chosen field and have been out looking for a job for months. Your student loans are coming into repayment soon and the condition of the job market has you really worried. You finally find an entry level position and on top of that it is perfect for you, it is your dream job, the whole reason you went into the field you did was to do this kind of work, not to mention that the position pays extremely well and has lots of opportunity for promotion. You have completed the first two rounds of the hiring process and are called in for the final round, which is an in person interview. You get to the hiring office and you see an old acquaintance that you really didn’t like all that well talking to the interviewer. Your acquaintance notices you and turns back to the interviewer and says a few last things before leaving the office. You are called in and proceed with the interview which you felt went pretty well. During the interview the interviewer informs you that your acquaintance told him that you had poor work performance and were generally undependable and then gave you the opportunity to comment. A couple days later you get a phone call from the interviewer informing you that you did not get the position.
Scenario #3: Employee control, job failure condition
You have finally graduated with your bachelors in your chosen field and have been out looking for a job for months. Your student loans are coming into repayment soon and the condition of the job market has you really worried. You finally find an entry level position and on top of that it is perfect for you, it is your dream job, the whole reason you went into the field you did was to do this kind of work, not to mention that the position pays extremely well and has lots of opportunity for promotion. You have completed the first two rounds of the hiring process and are called in for the final round, which is an in person interview. You get to the hiring office and you see an employee talking to the interviewer. The employee notices you and turns back to the interviewer and says a few last things before leaving the office. You are called in and proceed with the interview which you felt went pretty well. During the interview the interviewer informs you that the employee had given him your employment materials and then gave you the opportunity to comment. A couple days later you get a phone call from the interviewer informing you that you did not get the position.

Scenario #4: Employee control, job success condition
You have finally graduated with your bachelors in your chosen field and have been out looking for a job for months. Your student loans are coming into repayment soon and the condition of the job market has you really worried. You finally find an entry level position and on top of that it is perfect for you, it is your dream job, the whole reason you went into the field you did was to do this kind of work, not to mention that the position pays extremely well and has lots of opportunity for promotion. You have completed the first two rounds of the hiring process and are called in for the final round, which is an in person interview. You get to the hiring office and you see an employee talking to the interviewer. The employee notices you and turns back to the interviewer and says a few last things before leaving the office. You are called in and proceed with the interview which you felt went pretty well. During the interview the interviewer informs you that the employee had given him your employment materials and then gave you the opportunity to comment. A couple days later you get a phone call from the interviewer informing you that you did get the position.
APPENDIX B

COMPREHENSION QUESTIONS
In your own words what happened in this scenario?

What were you hoping to obtain in this scenario?

How successful were you in obtaining this?

What are three things you would feel in this situation?

What are three things you would think in this situation?

What are three things you would do in this situation?
APPENDIX C

PRIMING QUESTIONS
Internal Attributions:

How responsible would you feel you are for the outcome of the scenario?
Not responsible 1  2  3  4  5 Totally responsible

What could you have done to change the outcome of this scenario?
What did you do that attributed to the outcome of this scenario?

External Attributions:

How responsible would you feel the acquaintance/employee is responsible for the outcome of the scenario?
Not responsible 1  2  3  4  5 Totally responsible

What outside factors contributed to the outcome of this scenario?
What did the acquaintance/employee do that attributed to the outcome of this scenario?

Control:

Have you ever been in a situation like this before?
Can you see being such a situation?
How might things be different in the future should you find yourself in this kind of situation?
APPENDIX D

DEPENDENT MEASURES
1. I would be satisfied with myself  
Not true 1 2 3 4 5 Very true  

2. I would think I am no good at all  
Not true 1 2 3 4 5 Very true  

3. I would be able to do things as well as most other people  
Not true 1 2 3 4 5 Very true  

4. I feel I do not have much to be proud of  
Not true 1 2 3 4 5 Very true  

5. I would feel that I am a person of worth, at least as much so as others  
Not true 1 2 3 4 5 Very true  

6. I would take a positive attitude towards myself  
Not true 1 2 3 4 5 Very true  

7. I would feel sad or “bummed out”  
Not true 1 2 3 4 5 Very true  

8. I would feel discouraged about my future  
Not true 1 2 3 4 5 Very true  

9. I would feel I am being punished  
Not true 1 2 3 4 5 Very true  

10. I would have lost confidence in my abilities  
Not true 1 2 3 4 5 Very true  

11. I would feel like a failure as a person  
Not true 1 2 3 4 5 Very true  

12. I would feel restless or agitated  
Not true 1 2 3 4 5 Very true  

13. I would feel irritable  
Not true 1 2 3 4 5 Very true  

14. I would still have the same interest in my activities  
Not true 1 2 3 4 5 Very true  

15. I would have a hard time making decisions  
Not true 1 2 3 4 5 Very true  

16. I would feel worthless  
Not true 1 2 3 4 5 Very true  

17. I would be full of energy  
Not true 1 2 3 4 5 Very true
18. I can always manage to solve difficult problems if I try hard enough
Not true  1  2  3  4  5 Very true

19. If someone opposes me I could find the ways and means to get what I want
Not true  1  2  3  4  5 Very true

20. I am certain that I could accomplish my goals
Not true  1  2  3  4  5 Very true

21. I am confident that I could deal efficiently with unexpected events
Not true  1  2  3  4  5 Very true

22. Thanks to my resourcefulness, I could handle unforeseen situations
Not true  1  2  3  4  5 Very true

23. I could solve most problems if I invested the necessary effort
Not true  1  2  3  4  5 Very true

24. I could remain calm when facing difficulties because I could rely on my coping abilities
Not true  1  2  3  4  5 Very true

25. When I am confronted with a problem, I could find several solutions
Not true  1  2  3  4  5 Very true

26. If I am in trouble, I could think of a good solution
Not true  1  2  3  4  5 Very true

27. I could handle whatever comes my way
Not true  1  2  3  4  5 Very true

28. I could acquire another job that is similar to this one
Not true  1  2  3  4  5 Very true

29. I could work in this environment
Not true  1  2  3  4  5 Very true

30. I will have the skills and knowledge necessary to work effectively at this place of employment
Not true  1  2  3  4  5 Very true

31. How long would you strive to get this job?
Less than a month  1  2  3  4  5 More than a year

32. What more would you have done to get this job?
Nothing  1  2  3  4  5 A lot

33. How likely would you be to contact the employer about the decision?
Not at all  1  2  3  4  5 Most definitely
<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>34. I often do not complete many activities I begin</td>
<td>Not true at all</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>35. I usually persist at what I am doing</td>
<td>Not true at all</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>36. I often stay up all night to finish my work</td>
<td>Not true at all</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>37. When I do not understand something, I will ask repeatedly until I understand</td>
<td>Not true at all</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>38. When I fail in something, I am willing to try again and again</td>
<td>Not true at all</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>39. When I take part in an argument, I do not stop until everything is clear</td>
<td>Not true at all</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>40. When I do not understand something, I seek an explanation</td>
<td>Not true at all</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>41. I will continue my task even though I haven’t had much success at it</td>
<td>Not true at all</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>42. I will not go to work when I feel bad</td>
<td>Not true at all</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>43. If I was kicked out of work for no reason, I would not leave until I got proper explanation</td>
<td>Not true at all</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>44. If I try to solve a problem, I will not stop until I find a solution or a different approach</td>
<td>Not true at all</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>45. I usually give up easily when I do not succeed</td>
<td>Not true at all</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>
APPENDIX E

DEMOGRAPHICS
<table>
<thead>
<tr>
<th>Age________</th>
<th>Gender________</th>
</tr>
</thead>
<tbody>
<tr>
<td>Race/Ethnicity:</td>
<td></td>
</tr>
<tr>
<td>African American</td>
<td>Asian</td>
</tr>
<tr>
<td>Class Standing:</td>
<td></td>
</tr>
<tr>
<td>Freshman</td>
<td>Sophomore</td>
</tr>
<tr>
<td>Socioeconomic Status:</td>
<td></td>
</tr>
<tr>
<td>20,000 or less</td>
<td>20,001-40,000</td>
</tr>
<tr>
<td>100,001 or more</td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX F

TIME FILLER TASK
### Animal Names

<table>
<thead>
<tr>
<th>Aardvarks</th>
<th>Animals</th>
<th>Anteaters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antelopes</td>
<td>Bear</td>
<td>Camels</td>
</tr>
<tr>
<td>Cheetahs</td>
<td>Cougar</td>
<td>Deer</td>
</tr>
<tr>
<td>Cougar</td>
<td>Exotic</td>
<td>Giraffe</td>
</tr>
<tr>
<td>Deer</td>
<td>Hippo</td>
<td>Horse</td>
</tr>
<tr>
<td>Exotic</td>
<td>Jaguar</td>
<td>Kangaroo</td>
</tr>
<tr>
<td>Giraffes</td>
<td>Lion</td>
<td>Llamas</td>
</tr>
<tr>
<td>Kangaroo</td>
<td>Opossum</td>
<td>Platypus</td>
</tr>
<tr>
<td>Koalas</td>
<td>Sloths</td>
<td>Tiger</td>
</tr>
<tr>
<td>Monkey</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Opossum</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Racoon</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sloths</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tiger</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zebra</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX G

IMPOSSIBLE WORD TASK
Unscramble the words below:

1. acnde________________ 2. lepup________________
3. enze________________ 4. fehis________________
5. alcmae________________ 6. rcilce________________
7. aiyw________________ 8. raidm________________
9. nboker________________ 10. sbtkea________________
11. raeht________________ 12. lofevr________________
13. inyk________________ 14. kgsi________________
15. wemb________________ 16. ngcimo________________
17. yvtae________________ 18. lucah________________
19. ptehe________________ 20. tgrofe________________
21. eclaldoc________________ 22. lglnbrietee____________
23. ccnaouoshpo________________ 24. gouaegedm_____________
25. uegriaeags________________ 26. uftitcruoo_____________
27. isutetgceal________________ 28. ynisyrdoiasc____________
29. ockclposeidai____________
30. seoaymthrl________________
31. nahsvmaleial____________
32. tdoeruab________________
33. leelcpadoi____________
34. tqcioiwu________________
35. uotencra____________
36. tusinnioacms____________
37. tatuintnma____________
38. qbsuuiout____________
39. ereviattpu____________
40. aulosez____________
APPENDIX H

CONSENT FORM
**How Interpersonal Interactions Help and Hurt**

You are invited to participate in a study examining the impact of relationships with friends and foes. Please read this form and ask any questions you may have before participating in this research study.

**Background Information:**
This study focuses on the impact of interpersonal interactions. We have interpersonal goals and personal goals, at times our relationships can hinder or help our goals. We are interested in your view of these relationships and how they affected you and how relationships help us to progress to our goals.

**Procedure:**
If you agree to this study, you will first be asked to a scenario and answer a few questions about it. Next you will complete a questionnaire packet, the entire survey usually takes 30-45 minutes to complete, but you will be granted up to one hour to complete it. You are encouraged to ask any questions you might have. After completing the survey, you will turn in the completed survey in a sealed envelope to maintain your confidentiality. You will then be given a task to perform.

**Risks of Participating:**
In this study, you may be exposed to topics that make you feel uncomfortable. In addition to relationships, there are questions concerning other personal topics such as self-esteem. Thus, you may experience a range of emotions in responding. If any unpleasant feelings are raised, you are encouraged to contact the University Counseling Center at (662) 325-2091.

**Compensation:**
You will receive one credit for completing the survey. These points can be used to satisfy your course requirements in your introductory course, or as extra credit in your advanced course.

**Confidentiality:**
The records of this research study will be kept private and only researchers will have access to these records. If any portion of this study is published, no identifying information about the participants will be included.

**Voluntary Nature of the Study:**
Your decision whether or not to participate in this research study will not affect your current or future relationship with Mississippi State University or any person associated with the university. Even if you decide to participate, you are free to withdraw at anytime with no penalty.

**Contact and Questions:**
If you have any questions or concerns regarding this study and would like to talk to the researchers, please contact Caroline Saxon at crs287@msstate.edu or Colleen Sinclair at csinclair@psychology.msstate.edu. If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher(s), contact IRB at (662) 325-3994. You will be given a copy of this form to keep for your records.

**Statement of Consent:**
I have read and understand the above information. I acknowledge I am at least 18 years of age and I consent to my participation in this study. By signing here, I further acknowledge that am aware that my participation in this study will at least partially fulfill the research requirements for my General Psychology class or go for extra credit in my advanced courses. I am also aware that there are alternative ways of fulfilling my research requirement (e.g., completing a short paper; completing an exam on alternative readings). These alternatives are described in the syllabus for my General Psychology class or are available from your course instructors in your advanced classes.

Signature _______________________________   Date ____________

Signature of Investigator ___________________  Date ____________
APPENDIX I

DEBRIEFING FORM
Relationships and Goal Attainment Success and Failure: Debriefing Sheet

As mentioned in the directions for this study, this project is simply aiming to better understand how we are affected by different types of peer relationships. In particular, we are interested in developing our understanding of the influence of "enemyships" and how these relationships help us progress to our goals. For while considerable research has investigated friendships, far less has investigated the role of adversaries in our life (Hartup, 2003). Yet, we believe that enemies may have significant impact, and, further, that this impact can be both negative (e.g., make you feel bad about yourself) and positive (e.g., making you work harder to spite them) (Murray-Close & Crick, 2006). As we strive to attain our goals we formulate reasons for the outcome of these goals and the steps needed to reach them (Chandler et al., 1997). For example, we may have an important test and our goal is to get an A on it, if we get that A we may think “Ya, I’m just that smart” or “I studied really hard” if we fail to get the A we may think “My roommate bugged me all night and interrupted my studying” or “What was the teacher thinking? Nothing that was on the test had to do with what we learned”. Enemy research is in its infancy, and the latter hypothesis (that enemies could have a positive impact) has barely even been suggested by existing literature. Your contributions here will help us further understand how aversive relationships affect people and what can be done to counter this effect. Thank you for you participation! If you have any further interest in this topic, you can contact the researchers (Dr. Colleen Sinclair, cs534@msstate.edu or Caroline Saxon, crs287@msstate.edu).
APPENDIX J

IRB APPROVAL
November 5, 2005

Caroline Saxon
2112 A Village Drive
Starkville, MS 39759

RE: IRB Study #09-228: Antipathies and Attributions: Their Effects on Self-Esteem, Self-Efficacy, and Task Persistence

Dear Ms Saxon:

The above referenced project was reviewed and approved via expedited review for a period of 11/5/2009 through 10/15/2010 in accordance with 45 CFR 46.110 #7. Please note the expiration date for approval of this project is 10/15/2010. If additional time is needed to complete the project, you will need to submit a Continuing Review Request form 30 days prior to the date of expiration. Any modifications made to this project must be submitted for approval prior to implementation. Forms for both Continuing Review and Modifications are located on our website at http://www.orc.msstate.edu.

Any failure to adhere to the approved protocol could result in suspension or termination of your project. Please note that the IRB reserves the right, at anytime, to observe you and any associated researchers as they conduct the project and audit research records associated with this project.

Please note that the MSU IRB is in the process of seeking accreditation for our human subjects protection program. As a result of these efforts, you will likely notice many changes in the IRB's policies and procedures in the coming months. These changes will be posted online at http://www.orc.msstate.edu/human/aahpp.php. The first of these changes is the implementation of an approval stamp for consent forms. The approval stamp will assist in ensuring the IRB approved version of the consent form is used in the actual conduct of research. You must use copies of the stamped consent form for obtaining consent from participants.

Please refer to your docket number (#09-228) when contacting our office regarding this project.

We wish you the very best of luck in your research and look forward to working with you again. If you have questions or concerns, please contact Christine Williams at cwilliams@research.msstate.edu or call 662-325-5220.

Sincerely,

[For use with electronic submissions]

Christine Williams
IRB Compliance Administrator

cc: H. Colleen Sinclair

Office of Regulatory Compliance • Post Office Box 6023 • Mississippi State, MS 39762