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Chelsea M. Cooper, Student

Dr. Richard H. Smith, Major Professor

Dr. David T. R. Berry, Director of Graduate Studies

CHANGE IN ENVY AS A FUNCTION OF TARGET LIKEABILITY

THESIS

A thesis submitted in partial fulfillment of the requirements for the degree of Master of Science in the College of Arts and Sciences at the University of Kentucky

By

Chelsea Marie Cooper

Lexington, Kentucky

Director: Dr. Richard H. Smith, Professor of Psychology

Lexington, Kentucky

2013

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ABSTRACT OF THESIS

CHANGE IN ENVY AS A FUNCTION OF TARGET LIKEABILITY

Envy is a painful emotion that can negatively impact one's self-worth. It is also a shameful, socially undesirable emotion, implying both inferiority and hostility. Some scholars suggest that these features of envy lead to a need to cope with the emotion. Thus, over time, envy tends to be transformed into more socially acceptable responses such as resentment or dislike. The present study tested this claim. First, envy was manipulated by asking participants to read an article containing an interview with either a high- or low-envy target. The second article manipulated the likeability of the target by varying whether or not he or she made an arrogant statement. Finally, a third article indicated that the target had suffered a misfortune. Although, as predicted, envy decreased, the manipulation of likeability did not affect this decrease. Consistent with predictions, resentment increased after the second article and this was more likely when the target was dislikeable than when the target was likeable. Finally, the participants felt greater schadenfreude when the dislikeable target suffered than when the likeabile target suffered and marginally more schadenfreude when the target was more enviable. Clearly, envy dissipated over time, but further research is needed to determine precisely why.

KEYWORDS: Envy, Resentment, Social Emotions, Emotion-Regulation, Schadenfreude

Chelsea M. Cooper_____

2 March 2013

CHANGE IN ENVY AS A FUNCTION OF TARGET LIKEABILITY

By

Chelsea Marie Cooper

____Dr. Richard H. Smith_____ Director of Thesis

____Dr. David T. R. Berry____ Director of Graduate Studies

_____2 March 2013_____

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Chapter One: Introduction

Envy is defined as an unpleasant and often painful emotion caused by comparison with a person or group of persons that possess an advantage we desire (Smith & Kim, 2007). Envy is characterized by feelings of inferiority, hostility, and resentment and often elicits a desire to reduce the undesirable discrepancy between the self and the envied other (e.g., Aristotle, trans. 1929; Foster, 1972; Girard, 2001; Hill & Buss, 2008). Envy not only is painful for the self but can also motivate one toward hurting the person who is envied (e.g., Sanfey, Rilling, Aronson, Nystrom, & Cohen, 2003; Smith & Kim, 2007; Zizzo & Oswald, 2001).

Unlike many other emotions, envy is a socially undesirable, even shameful, emotion to feel (Heider, 1958; Foster, 1972). Because envy implies both inferiority and hostility, people suffering envy avoid admitting it to others as well as to themselves in private (e.g., Foster, 1972; Schoeck, 1969; Silver & Sabini, 1978). Because of these features, scholars have speculated that envy is the type of emotion that transmutes itself (e.g., Farber, 1966; Elster, 1998; Parrott, 1991; Smith, 2007). Elster (1998) states that envy has a protean aspect that can leave it difficult to pin down as it tricks the public as well as the envying person. When an advantage of another similar person is noticed, a blend of inferiority, hostility, and resentment combine to form the feeling usually labeled envy. These combined feelings produce the initial pangs of envy, but the process is assumed to continue on different paths as the person deals with the threat of the emotion. Although there is little direct, empirical research on these processes, scholars suggest that efforts to cope may lead to constructive and positive responses to the comparison, while others may be defensive and destructive. Much research in other domains (e.g., Aronson,

1992; Montaldi, 1999; Tesser, 2000) suggests that defensive reactions are more common. Smith and Kim (2007), for example, argue based on the existing literature on reactions to unflattering social comparisons more generally, that:

People feeling envy will tend to find ways to justify their hostility, such as making downward comparisons (Gibbons & Gerrard, 1991; Wills, 1981), especially on moral domains (Montaldi, 1999), thus rendering the advantaged person or persons undeserving of their advantage by virtue of their perceived moral failings. (p. 56)

These defensive responses should probably lead into a "transmutation zone," where those feeling envy should nurture their subjective sense of injustice and seek ways to perceive the envied as undeserving based on their moral faults (Smith & Kim, 2007, p. 56).

Thus, Parrott (1991) has suggested that envy is best understood not as a discrete experience but rather as an episode that unfolds over time. Parrott (1991) defines an emotional episode as including "the circumstances that lead up to an emotion or sequence of emotions, the emotions themselves, any attempts at self-regulation or coping that occur, subsequent events and actions, and the resolution or present status quo" (p. 4). He views envy as more than just feelings but as encompassing an evolving set of physiological responses and cognitive appraisals.

One way to understand how such a transformation process might work is to place envy in the context of approaches to emotion regulation (e.g., Gross, 2002; Lazarus & Folkman, 1984; Lazarus, 1991). The process model of emotion regulation suggests that people enter a situation, attend to certain aspects of the situation, interpret these aspects in particular ways, and then experience an emotion based on the appraisal made (Gross,

2002). This model details three kinds of strategies for regulating emotion: problemfocused coping, reappraisal, and emotion-focused coping. Relevant for the purposes of this paper, emotion-focused coping attempts to reduce or eliminate an emotion that is already being experienced. Because the situation cannot be changed nor the appraisals that already occurred to lead to the painful emotion, changing the feeling or stunting the expression of the emotion is the most effective coping strategy (Kalat & Shiota, 2007).

Further, Lazarus and Folkman (1984) discuss the importance of appraisal in emotion regulation. In order to survive and succeed, people need to be able to differentiate between benign and harmful situations. The distinctions between benign and harmful situations are often subtle, multifaceted and influenced by what we have learned and experienced in the world. Cognitive appraisal involves the evaluative sorting of an encounter and determining if it is significant to one's well-being. Lazarus and Folkman (1984) also note a critical distinction between primary appraisal and secondary appraisal. Primary appraisal consists of determining the meaning of a situation and whether or not it is a threat. Once the meaning of the situation has been determined, secondary appraisal is where one evaluates what can be done to manage it in the coping process. Lazarus and Folkman (1984) state "primary and secondary appraisal are interdependent, cannot be considered separate processes, and most likely influence each other" (p. 43). Additionally, Lazarus and Folkman (1984) define reappraisal as a modified appraisal after taking into account new information gained from the changing environment. Defensive reappraisals are any effort to reinterpret the past more positively or view threats as less damaging. Bloom, Houston, Holmes, and Burish's findings (1977) suggest

that when the threat is ambiguous, redefinition (as in reappraisal) is easier for subjects to accomplish as compared with the scenarios where the nature was clear.

What are the implications for envy? The initial feeling of envy likely involves the primary appraisal of threat. Another person, potentially a rival, has a desired advantage. The hostile aspect of envy should create a tendency to aggress against the target, but taking action is potentially costly. Envy is not seen by others as a legitimate cause for hostility, and so the envying person is likely to hide their envy and to suffer the feeling in private. This is where secondary appraisal should enter into the picture. People feeling envy are likely to cope with their envy by trying to find ways to perceive envied targets as undeserving of their advantage. If they can succeed in doing so, then they need no longer construe their feelings as envy, but rather as resentment. Furthermore, the more they succeed in this construal, the more they may convince others as well as themselves.

Another reason to expect envy to transform itself into resentment is that many instances of envy, arguably, already contain a kind of desire for justice (e.g., Forrester, 1997). Smith, Parrott, Ozer, and Moniz (1994) found that subjective injustice beliefs were an important part of envy as they predicted both the depressive and hostile feelings associated with the experience. From a subjective point of view, some advantages can seem unfair in that the envying person cannot be blamed for what they lack; life simply dealt them an arbitrarily unfair hand with such attributes as physical attractiveness, intelligence, and athletic ability. Also, evolutionary theorists Buss and Hill (2007) suggest that it is adaptive for the envious person to construe the envied advantage as unfair as this can produce the motivation to do something about it.

It is important to note that envy-based feelings of injustice do not have the legitimacy of just feelings resulting from "objective" injustice. Consequently, they are probably less openly expressed. And yet, because the feeling of envy has an underlying component of resentment, people feeling envy should be highly attuned to information allowing them to legitimize their resentment (Smith & Kim, 2007). Thus, the nature of envy should lead in the direction of increasing resentment over the envied person's advantage.

Envy may also transform itself into a justified dislike, a process also related to perceptions of deservingness. Envy contains hostility toward the envied person but is not the kind of hostility that enjoys support from others. Thus, scholars claim that the envying person should look for reasons to justify their ill-will through a biased perception of the traits possessed by the envied person (e.g., Smith & Kim, 2007). The envied person may act in a "confident" way, but the envying person should tend to interpret this confidence as "arrogance." Arrogance, of course, is a socially unattractive trait, and it is only natural and warranted to dislike someone who behaves in an arrogant way. Indeed, they seem to "deserve" to be disliked.

Other theoretical perspectives are consistent with such a reappraisal process. For example, people often use a framework of organized conceptions about people, events, and things that serve as a method to remember and process new information; this is known as a schema (Bartlett, 1932). New information is usually interpreted in accordance with this framework or ignored if it does not fit. For example, Darley and Gross (1983) looked at cognitive confirmation effects, meaning expectancy-confirmation effects that occur when no real interaction has occurred between a target and an observer. A target

person's actions was selectively interpreted and recalled later by perceivers based on their expectations (a form of schema (e.g., Duncan, 1976; Kelley, 1950; Langer & Abelson, 1974). Darley and Gross (1983) suggest that some schemas create not certainties but hypotheses that are then tested in a biased fashion that leads to a false confirmation.

It is possible that emotions such as envy influence the schemas people use to perceive envied targets. People with advantages might tend to be perceived as obtaining their advantages through unfair means or be perceived as arrogant. These perceptions should enhance resentment and dislike and reduce the self-perception of envy. As noted earlier, the same behavior in an advantaged person might be perceived as "confidence" from a non-envying person's point of view, but "arrogant" from an envying person's perspective. The unprincipled envied target or the envied target who has an arrogant personality can not only be legitimately disliked but can also be seen as undeserving of their advantage. Bad people do not deserve good outcomes (e.g., Heider, 1958).

The main goal of this study was to begin to test this sort of process. First, envy was manipulated by asking participants to read an article containing an interview with either a same-sex high- or low-envy target. A second article manipulated the likeability of the target by varying whether or not he or she appeared to have made an arrogant statement. It was predicted that envy would decrease while resentment and dislike would increase from time 1 to time 2, and that this would occur for the high-envy conditions not the low-envy conditions. However, it was also predicted that this pattern, in the case of envy, would be qualified by an Envy X Time X Target Likeability interaction. It was expected that, in the high-envy conditions (not the low-envy conditions), envy would decrease more from time 1 to time 2 when the target was dislikeable than when the target

was likeable. For resentment and dislike, higher order interactions were also expected. In the high-envy conditions, more than the low-envy conditions, both resentment and dislike would increase more from time 1 to time 2 when the target was dislikeable than when the target was likeable.

Implications for Schadenfreude

What are the implications of envy being transformed into increased resentment and dislike? One possibility is that it promotes even greater open hostility (Smith, 2007). For example, Smith, Turner, Garonzik, Leach, Urch-Druskat, & Weston (1996) show that envy primes people to experience schadenfreude if something bad happens to the advantaged person. When an envious individual views an advantaged person suffer, the playing field is leveled as they fill with delight over the person's 'fall' from their superior pedestal. In this instance, the envious individual's self has been able to gain some equal ground and restore the positive view of its self. Schadenfreude is this experience of happiness over another's misfortune (Smith et al., 1996). Envy has been shown to lead to schadenfreude when the envied person suffers (Smith et al., 1996; Van Dijk, Ouerwerkerk, Goslinga, Nieweg, & Galluci, 2006). However, this link has sometimes been difficult to demonstrate because participants often do not admit their envy and are even more unlikely to admit schadenfreude when envy seems to be its cause. These concerns should be lessened when envy has been transformed into resentment and dislike. These emotions imply a more "legitimate" basis for feeling schadenfreude (Feather & Sherman, 2002).

There is some evidence for a transformation process explaining how envy might link with schadenfreude. Sundie, Ward, Beal, Chin, and Geiger-Oneto (2009) examined

schadenfreude from a marketing perspective. Participants were told that the research involved "snap judgments" made by consumers. Participants were presented with accounts describing a student whose car broke down. Across 3 studies, when the car was expensive and suggested high status, its failure was more likely to produce schadenfreude than when the car was inexpensive and suggested low status (Sundie et al., 2009). Further analysis suggested that envy toward the student explained the resulting schadenfreude through the hostile feelings that the envy appeared to generate.

The research by Sundie et al. (2009) is consistent with the possibility that envy might tend to transform itself into reactions such as resentment and dislike, which then produces enhanced hostile responses, such as schadenfreude. However, Sundie at al. (2009) did not manipulate aspects of the situation that might produce the transformation of envy. Their approach was cross-sectional, in the sense that they did not first produce envy and then create conditions that might lead to its transformation. Participants in the current study received a third article after they had read and responded to the article manipulating the likeability of the target person. This article indicated that the target person had suffered a misfortune. It was predicted that the high-envy target would produce more schadenfreude than the low-envy target. However, it was also predicted that participants in the high-envy/dislikeable condition would report especially higher schadenfreude, which would be reflected in an Envy X Target Likeability interaction.

Chapter Two: Method

Participants

The 243 participants were drawn from the introductory psychology participant pool at the University of Kentucky. The undergraduate students completed this study to earn partial course credits. An a-priori power analysis (given an α of .05, power of .8, and a medium effect size) revealed that 120 participants needed to be collected to detect a significant effect (30 in each of the 4 conditions). The additional participants were included in order to examine the influence of a set of personality measures collected in mass testing session during the first few weeks of the semester. However, these measures are not the focus of the present aspect of the research. Upon closer inspection and after outlier removal analysis, 233 students (151 women, 82 men) remained as the final number of participants used for analysis. Three participants did not give their consent for the data to be used after the debriefing, resulting in immediate destruction of their responses. Another three participants were deleted due to lack of comprehension of the Likert-scale responses and not following the directions. Two participants' responses were eliminated because their comments on the open-ended, written debriefing suggested that they were highly suspicious of the procedure and thus were unable to give natural reactions to the materials. Finally, two participants were identified as outliers and removed from the analysis.

Design

The study used a 2 (Envy: low-envy vs. high-envy) × 2 (Target Likeability: dislikeable vs. likeable) x 2 (Time: Time 1 vs. Time 2) mixed ANOVA design. Gender was included in all initial analyses, but as there were no systematic effects for this variable, it was not included in the reported results.

Procedure

Participants were recruited to participate in a study allegedly interested in responses to different types of media. As part of the cover story, the participants were told to read a series of three Internet articles and asked questions about the design and formatting of the media. Participants then gave their informed consent if they chose to participate in the study and allow their responses to be used for analyses (see Appendix A for the script, debriefing, and brief explanation materials).

Envy manipulation. The participants read the first Internet article about a college student. The first article presented an interview with the biographical details about a target who is presumed to be real but is actually fictional. Targets in the articles were the same gender as the participant (Whitney Breckstone or Brandon Breckstone). The content of the article varied depending on the randomly determined condition: high- or low-envy. The high-envy condition made the target seem advantaged, confident, and lucky in his or her life (see Appendix B for the high-envy female condition article and see Appendix C for male article). For example, the high-envy target appeared headed to a prestigious law school, had performed well academically, and had parents who had bought him or her an expensive car. The photo of the target revealed someone physically attractive. The low-envy condition female article and see Appendix E for the male article). For example, the student as average in all areas of their life (see Appendix D for low-envy target was unsure of his or her career possibilities, had average grades, and enjoyed no obvious parental advantages. Also the photo was of someone of

average attractiveness. The materials for the high- and low-envy conditions have succeeded in producing strong and little envy, respectively, in previous research (Van de Ven, Hoogland, Smith, Van Dijk, Breugelmans, & Zeelenberg, 2012).

Post envy-manipulation measures. After reading the first article, participants completed a set of items (which were presented as "Control Mood Measure," see Appendix F for a complete set of female measures) designed to assess a number of reactions, as well as to keep participants focused on the cover story (using a Likert-scale: 0 = none at all; 11 = great amount). For the purpose of the present analysis, three items, selected based on the definition of envy developed by Smith and Kim (2007), assessed malicious envy ("envious of," "jealous of," "inferior to"; Cronbach's $\alpha = .85$). It is important to note that all Cronbach's alphas reported in this paper were based on data from the current study. Three items assessed resentment ("resentful toward," "indignant over his/her advantages," "grudge against"; Cronbach's $\alpha = .74$), and four items assessed dislike ("dislike toward," "bothered by," "disrespect for," "disgusted by"; Cronbach's $\alpha = .85$).

Finally, a set of filler questions asked participants about what they recalled from the interview (such as "where does Whitney/Brandon live?" and "does Whitney/Brandon currently have a job?") to limit suspicion.

Target likeability manipulation. Participants then turned to a second article that described current issues relating to Greek life and the fairness of Rush Week. It included a quote from the target, who was referred to as the vice president of his or her fraternity/sorority and a legacy member. The likeability of the target was manipulated by varying the content of the quote. In the dislikeable condition (see Appendix G), the quote

was an arrogant comment about those unable to get into a sorority or fraternity: "Well, the reality is that some people are just not good enough to make the cut. There are other organizations to join on campus." In the likeable condition (see Appendix H), the quote read: "It's really too tough that some people don't get in. We are working to improve the system."

Post likeability-manipulation measures. Participants completed a second "mood" measure containing the same items as the first measure (including envy (Cronbach's $\alpha = .72$), resentment (Cronbach's $\alpha = .67$), dislike (Cronbach's $\alpha = .94$), as well as another set of items assessing their impressions of the target (also using a Likert-scale: 0 = none at all; 11 = extremely). In this second set, seven items served as a check on the effectiveness of the target likeability manipulation. Two items assessed how likeable the participants' impression was of the target ("likeable," "friendly"; Cronbach's $\alpha = .86$) and five items assessed how arrogant the participants perceived the target ("self-centered," "arrogant," "conceited," "condescending," "selfish"; Cronbach's $\alpha = .94$).

Identity theft misfortune. The third article, received by participants in every condition, focused on the problem of identity theft on campus (see Appendix I). It described a particular case in which the target person was interviewed about being a victim of this identity theft. The target noted that his or her wallet was stolen when he or she was drinking and careless at a party, which constituted a misfortune that was deserved to some degree.

Post misfortune measures. Participants completed a third "mood" measure containing the similar items as the first two measures (including envy (Cronbach's $\alpha = .74$), resentment (Cronbach's $\alpha = .74$), dislike (Cronbach's $\alpha = .91$), and three items

assessing schadenfreude ("amused by what has happened to him/her," "can't resist a little smile because of what has happened to him/her," "pleased by what has happened to him/her"; Cronbach's $\alpha = .87$). Other questions concerned information relevant to the cover story. Finally, there was a three-part debriefing process. The first part involved completing a set of open-ended questions designed to assess suspicion (see Appendix J). The second part was an oral debriefing of the true purpose of the study. The third part was an opportunity for participants to give their second, signed consent to use their data.

Chapter Three: Results

Manipulation Checks

Envy Manipulation. To test the effectiveness of the envy manipulation, an independent samples t-test was performed comparing the high- and low-envy condition using the measure of envy obtained at Time 1. As expected, reported envy was significantly higher in the high-envy condition (M = 3.86, SD = 2.76) than in the low-envy condition (M = .91, SD = 1.22), t(157.82) = -10.51, p < .001, d = 1.39 (see Figures 3.1 and 3.2). A 2 (Envy: low-envy vs. high-envy) x 2 (Target Likeability: likeable vs. dislikeable) ANOVA was also conducted. There was a significant main effect of envy, F(1, 229) = 109.84, p < .001, $\eta_p^2 = .32$. There was no main effect of likeability or Envy x Target Likeability interaction.

Target Likeability Manipulation. To check the effectiveness of the target likeability manipulation, both the measures of likeability and arrogance (obtained at Time 2, following the target likeability manipulation), were analyzed using two 2 (Envy: low-envy vs. high-envy) x 2 (Target Likeability: likeable vs. dislikeable) ANOVA's.

Likeable Impression. As Figure 3.3 shows, there was a significant effect of target likeability, F(1, 229) = 53.83, p < .001, $\eta_p^2 = .19$, where participants in the likeable condition (M = 6.0, SD = 2.29) reported a greater likeable impression of the target than the dislikeable condition (M = 3.71, SD = 2.50). There was no significant main effect of envy or Envy x Target Likeability interaction.

Arrogant Impression. Also as expected, there was a significant effect of target likeability, F(1, 229) = 88.07, p < .001, $\eta_p^2 = .28$, where participants in the likeable condition (M = 3.72, SD = 3.27) reported lower impressions of arrogance in the target

than in the dislikeable conditions (M = 7.24, SD = 3.04). In addition, unlike with the measure of likeable impression, there was a significant effect of envy, F(1, 229) = 56.1, p < .001, $\eta_p^2 = .20$; the high-envy condition (M = 6.93, SD = 3.14) produced greater perceptions of arrogance in the target than the low-envy condition (M = 4.12, SD = 3.51). Interestingly, there was also a significant Envy X Likeability interaction, F(1, 229) = 11.22, p = .001. As Figure 3.4 also shows, the effect of envy on the perception of arrogance was notably more pronounced in the likeable condition, t(229) = -7.58, p < .001, d = -1.00, than in the dislikeable condition, t(229) = -2.96, p = .003, d = -.39), hence the statistically significant interaction.

In sum, the manipulation of target likeability was also effective, although in the case of the measure of arrogance, target enviability appeared to enhance perceptions of arrogance, especially in the likeable conditions.

Envy Dependent Measure

A mixed design 2 (Time: time 1 envy vs. time 2 envy) X 2 (Envy: low-envy vs. high-envy) X 2 (Target Likeability: dislikeable vs. likeable) ANOVA was performed to examine change in envy from time 1 to time 2 in the context of the manipulations of envy and target likeability. There was a significant between-participant effect for envy, F(1, 229) = 78.24, p < .001, $\eta_p^2 = .26$, with reported envy being higher across the high-envy conditions (M = 2.59, SD = 1.96) compared to the low-envy conditions (M = .77, SD = 1.02), and no significant main effect of target likeability. There was also a significant within-participant effect for time, F(1, 229) = 106.45, p < .001, $\eta_p^2 = .32$; overall, reported envy (see Figure 3.6) declined significantly from time 1 (M = 2.38, SD = 2.6) to time 2 (M = .98, SD = 1.60). As Figure 3.5 shows, this effect was, as would be expected,

greater in the high-envy condition compared with the low-envy condition, which was reflected by a significant Time X Envy interaction, F(1, 229) = 68.53, p < .001, $\eta_p^2 = .23$. This interaction was followed up to determine the effect of time on envy when the target was enviable and also when the target was unenviable. Results indicated, as expected, there was no significant difference for envy over time when the target was unenviable, F(1, 229) = 2.09, p = .15, $\eta_p^2 = .01$. When the target was enviable, as expected, there was a significant difference for envy over time, F(1, 229) = 171.94, p < .001, $\eta_p^2 = .43$. However, unexpectedly, there was no first order interaction between time and target likeability or a higher order interaction between time, target likeability, and envy; that is, reduced reported envy from time 1 to time 2 (in the high-envy conditions compared to the low-envy conditions) was not greater in the dislikeable condition compared with the likeable condition.

Resentment Dependent Measure

A mixed design 2 (Time: time 1 resentment vs. time 2 resentment) X 2 (Envy: low-envy vs. high-envy) X 2 (Target Likeability: dislikeable vs. likeable) ANOVA was performed to examine change in resentment from time 1 to time 2 in the context of the manipulations of envy and target likeability. There was a significant between-participant effect for envy, F(1, 229) = 40.41, p < .001, $\eta_p^2 = .15$, with reported resentment being higher across the high-envy conditions (M = 2.16, SD = 1.86) compared to the low-envy conditions (M = .88, SD = 1.14). There was also a significant between-participant effect for target likeability, F(1, 229) = 12.81, p < .001, $\eta_p^2 = .05$; with reported resentment being higher across the dislikeable conditions (M = 1.88, SD = 1.79) compared to the likeable conditions (M = 1.14, SD = 1.44). In addition, there was also a significant

within-participant effect for time, F(1, 299) = 13.99, p < .001, $\eta_p^2 = .06$; overall, reported resentment increased significantly from time 1 (M = 1.29, SD = 1.67) to time 2 (M= 1.74, SD = 2.11). Unexpectedly, this pattern did not differ as a function of level of envy, as there was no Time X Envy interaction. However, as Figure 3.6 shows, there was a significant first order interaction between time and target likeability, F(1, 229) = 28.42, p < .001, $\eta_p^2 = .11$; resentment decreased in the likeable conditions and increased in the dislikeable conditions. This interaction was followed up to determine the effect of time on resentment among the levels of likeability. Results indicated, as expected, there was no significant difference for resentment over time when the target was likeable, F(1, 229)= 1.24, p = .27, $\eta_p^2 = .01$. When the target was dislikeable, as expected, there was a significant difference for resentment over time, F(1, 229) = 42.06, p < .001, $\eta_p^2 = .16$. More importantly, these first order effects were qualified by a higher order Time X Envy X Target Likeability interaction, F(1, 299) = 4.13, p = .043, $\eta_p^2 = .02$. This three-way interaction was followed up to determine the effect of time and envy among different levels of likeability. As Figure 3.7 shows, in the dislikeable conditions, consistent with expectations, resentment increased from time 1 to time 2 (though equally for both highand low-envy conditions, F(1, 299) = 26.38, p < .001, $\eta_p^2 = .10$, and F(1, 299) = 16.40, p < .001, $\eta_p^2 = .07$, respectively); in the likeable conditions, also consistent with expectations, resentment significantly decreased in the high-envy conditions (F(1, 299) =5.22, p = .023, $\eta_p^2 = .02$) and was essentially the same in the low-envy conditions (F(1, 299) = .58, p = .45, $\eta_p^2 = 0$).

Dislike Dependent Measure

A mixed design 2 (Time: time 1 dislike vs. time 2 dislike) X 2 (Envy: low-envy vs. high-envy) X 2 (Target Likeability: dislikeable vs. likeable) ANOVA was performed to examine change in dislike from time 1 to time 2 in the context of the manipulations of envy and target likeability. There was a significant between-participant effect for envy, F(1, 229) = 23.29, p < .001, $\eta_p^2 = .09$, with reported dislike being higher across the high-envy conditions (M = 3.12, SD = 2.40) compared to the low-envy conditions (M = 1.81, SD = 1.91). There was also a significant between-participant effect for target likeability, F(1, 229) = 42.85, p < .001, $\eta_p^2 = .16$, with reported dislike being higher across the dislikeable conditions (M = 3.32, SD = 2.31) compared to the likeable conditions (M = 1.57, SD = 1.82). In addition, there was also a significant withinparticipant effect for time, F(1, 229) = 71.66, p < .001, $\eta_p^2 = .24$; overall, reported dislike increased significantly from time 1 (M = 1.55, SD = 1.96) to time 2 (M = 3.26, SD =3.41). Unexpectedly, this pattern did not differ as a function of level of envy, as there was no Time X Envy interaction. However, there was a significant first order interaction between time and target likeability, F(1, 229) = 119.56, p < .001, $\eta_p^2 = .34$; dislike decreased slightly in the likeable conditions and increased in the dislikeable conditions. This Time X Target Likeability interaction was followed up to determine the effect of time on dislike among the levels of likeability. Results indicated, there was a marginally significant difference for dislike over time when the target was likeable, F(1, 229) = 2.98, p = .09, $\eta_p^2 = .01$. When the target was dislikeable, as expected, there was a significant difference for dislike over time, F(1, 229) = 192.35, p < .001, $\eta_p^2 = .46$. More importantly, these first order effects were qualified by a higher order Time X Envy X Target Likeability interaction, F(1, 299) = 5.04, p = .026, $\eta_p^2 = .02$. As Figure 3.8 shows,

in the dislikeable conditions, consistent with expectations, dislike significantly increased from time 1 to time 2 (though for both high- and low-envy conditions, F(1, 299) = 113.94, p < .001, $\eta_p^2 = .33$, and F(1, 299) = 80.33, p < .001, $\eta_p^2 = .26$, respectively); in the likeable conditions, also consistent with expectations, dislike significantly decreased in the high-envy conditions (F(1, 299) = 7.18, p = .008, $\eta_p^2 = .03$).

Schadenfreude Dependent Measure

A 2 (Envy: low-envy vs. high-envy) X 2 (Target Likeability: dislikeable vs. likeable) ANOVA was conducted on the measure of schadenfreude obtained following the misfortune (time 3). There was a marginally significant main effect of envy, F(1, 229)= 3.49, p = .063, $\eta_p^2 = .02$. As expected, participants in the high-envy group (M = 3.16, SD = 2.97) reported more schadenfreude than those in the low-envy group (M = 2.41, SD= 3.03). As Figure 3.9 shows, as expected, there was also a significant main effect of target likeability, F(1, 229) = 8.62, p = .004, $\eta_p^2 = .04$, where participants who read about the dislikeable target at time 2 (M = 3.35, SD = 3.34) reported more schadenfreude for the target's misfortune than those who read about the likeable target (M = 2.19, SD = 2.52). However, unexpectedly, there was no Envy X Target Likeability interaction. *Secondary Analysis Examining Changes across Time 1 to Time 3*

Envy Dependent Measure. A mixed design 3 (Time: time 1 envy vs. time 2 envy vs. time 3 envy) X 2 (Envy: low-envy vs. high-envy) X 2 (Target Likeability: dislikeable vs. likeable) ANOVA was performed to examine change in envy from time 1 to time 2 to time 3 in the context of the manipulations of envy and target likeability. As Figure 3.10 shows, there was a significant between-participant effect for envy, F(1, 229) = 64.87, p < .001, $\eta_p^2 = .22$, (with reported envy being higher across the high-envy conditions (*M*

= 2.02, SD = 1.69) compared to the low-envy conditions (M = .60, SD = .83)), but no significant between-participants effect of target likeability or Envy x Target Likeability interaction. There was also a significant within-participant effect for time, F(1.57), 358.67) = 130.58, p < .001, $\eta_p^2 = .36$; overall, reported envy was reduced significantly from time 1 (M = 2.38, SD = 2.59) to time 2 (M = .98, SD = 1.60), F(1, 229) = 106.45, p < .001, $\eta_p^2 = .32$, then decreased significantly again at time 3 (M = .56, SD = 1.28), F(1,229) = 27.66, p < .001, $\eta_p^2 = .11$. As Figure 3.11 also shows, this effect was, as would be expected, greater in the high-envy condition compared with the low-envy condition, which was reflected by a significant Time X Envy interaction, F(1.57, 358.67) = 62.64, p< .001, $\eta_p^2 = .22$. This interaction was followed up to determine the effect of time on envy when the target was enviable and also when the target was unenviable. Results indicated, there was a significant difference for envy over time when the target was unenviable, F(1, 229) = 7.851, p = .001, $\eta_p^2 = .03$. When the target was enviable, as expected, there was a significant difference for envy over time, F(1, 229) = 184.38, p < 100.001, $\eta_p^2 = .45$. There was no significant first order interaction between time and target likeability as well as no higher order interaction between time, target likeability, and envy.

Resentment Dependent Measure. A mixed design 3 (Time: time 1 resentment vs. time 2 resentment vs. time 3 resentment) X 2 (Envy: low-envy vs. high-envy) X 2 (Target Likeability: dislikeable vs. likeable) ANOVA was performed to examine change in resentment from time 1 to time 2 to time 3 in the context of the manipulations of envy and target likeability. There was a significant between-participant effect for envy, F(1,229) = 30.35, p < .001, $\eta_p^2 = .12$, (with reported resentment being higher across the high-

envy conditions (M = 1.97, SD = 1.77) compared to the low-envy conditions (M = .89, SD = 1.19), as well as a significant between-participants effect of target likeability, F(1, 1) $(229) = 12.77, p < .001, \eta_p^2 = .05$, (with reported resentment being higher across the dislikeable conditions (M = 1.78, SD = 1.74) compared to the likeable conditions (M= 1.06, SD = 1.35), and no Envy x Target Likeability interaction. There was also a significant within-participant effect for time, F(1.88, 430.3) = 12.50, p < .001, $\eta_p^2 = .05$; overall, reported resentment was increased significantly from time 1 (M = 1.29, SD =1.68) to time 2 (M = 1.75, SD = 2.11), F(1, 229) = 13.99, p < .001, $\eta_p^2 = .06$, then significantly decreased at time 3 (M = 1.24, SD = 1.82), F(1, 229) = 28.17, p < .001, η_p^2 = .11. As Figure 3.12 shows, the effect was greater in the high-envy condition compared with the low-envy condition, which was reflected by a significant Time X Envy interaction, F(1.88, 358.67) = 5.38, p = .005, $\eta_p^2 = .02$. This interaction was followed up to determine the effect of time on resentment when the target was enviable and also when the target was unenviable. Results indicated, there was a significant difference for resentment over time when the target was unenviable, F(1, 229) = 6.71, p = .002, $\eta_p^2 =$.03. When the target was enviable, as expected, there was a significant difference for envy over time, F(1, 229) = 11.15, p < .001, $\eta_p^2 = .05$. There was a significant first order interaction between time and target likeability, F(1.88, 358.67) = 16.39, p < .001, $\eta_p^2 =$.07. As Figure 3.13 shows, resentment essentially remained the same in the likeable conditions while resentment increased (time 2) then decreased (time 3) in the dislikeable conditions. This interaction was followed up to determine the effect of time on resentment among the levels of likeability. Results indicated, as expected, there was a marginally significant difference for resentment over time when the target was likeable,

 $F(1, 229) = 2.52, p = .08, \eta_p^2 = .01$. When the target was dislikeable, as expected, there was a significant difference for resentment over time, $F(1, 229) = 26.90, p < .001, \eta_p^2 = .11$. However, there was no significant higher order interaction between time, target likeability, and envy (see Figure 3.14).

Variables	1	2	3	4	5	6	7	8	9	10	11	12
1. Envy Time 1												
2. Resentment Time 1	.547**											
3. Dislike Time 1	.332**	.733**										
4. Envy Time 2	.451**	.418**	.248**									
5. Resentment Time 2	.446**	.533**	.396**	.334**								
6. Dislike Time 2	.225**	.271**	.301**	.090	.717**							
7. Likeable impression	.111	049	128	.161*	251**	515**						
8. Arrogance	.350**	.381**	.415**	.099	.575**	.755**	429**					
9. Envy Time 3	.469**	.430**	.158*	.645**	.321**	.090	.100	.116				
10. Resentment Time 3	.371**	.493**	.323**	.382**	.729**	.490**	114	.398**	.465**			
11. Dislike Time 3	.255**	.369**	.441**	.173**	.637**	.767**	370**	.631**	.187**	.638**		
2. Schadenfreude	.262**	.364**	.380**	.189**	.502**	.545**	252**	.466**	.209**	.478**	.658**	

** *p* < 0.01, * *p* < 0.05

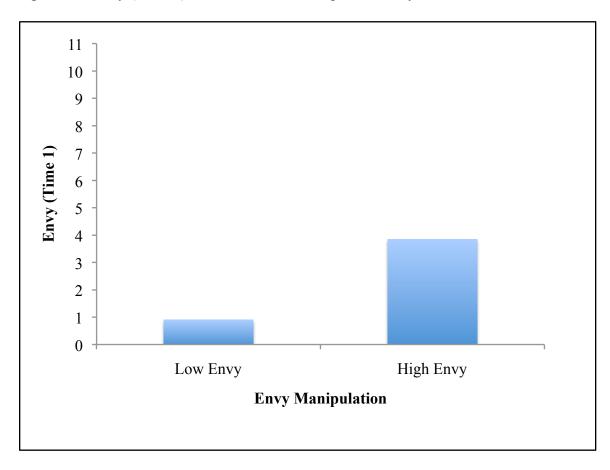


Figure 3.1. Envy (Time 1) as a Function of Manipulated Envy.

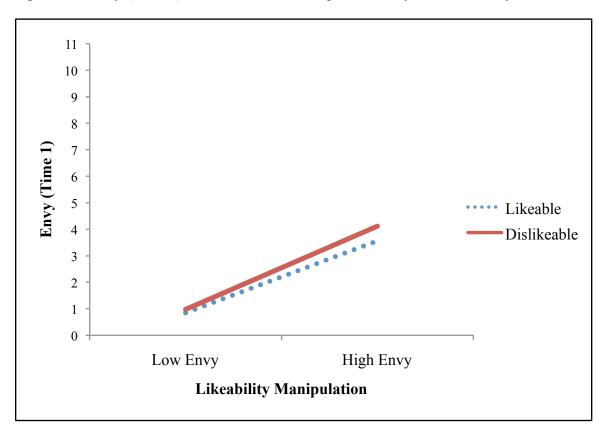


Figure 3.2. Envy (Time 1) as a Function of Manipulated Envy and Likeability.

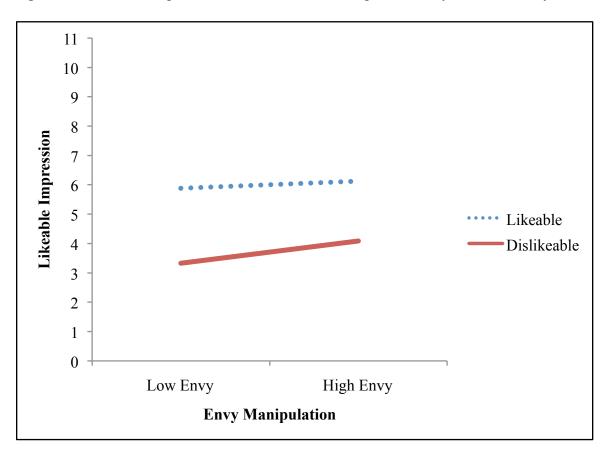


Figure 3.3. Likeable Impression as a Function of Manipulated Envy and Likeability.

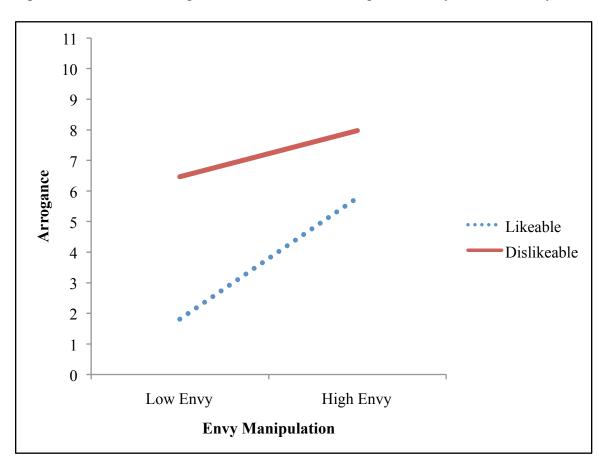
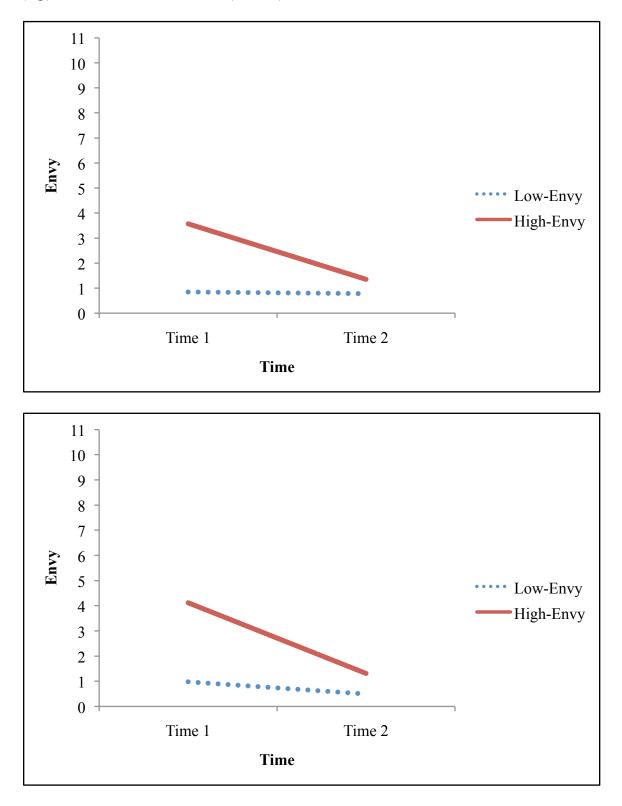


Figure 3.4. Perceived Arrogance as a Function of Manipulated Envy and Likeability.

Figure 3.5. Change in Envy as a Function of Manipulated Envy in Likeable Condition (top) and Dislikeable Condition (bottom).



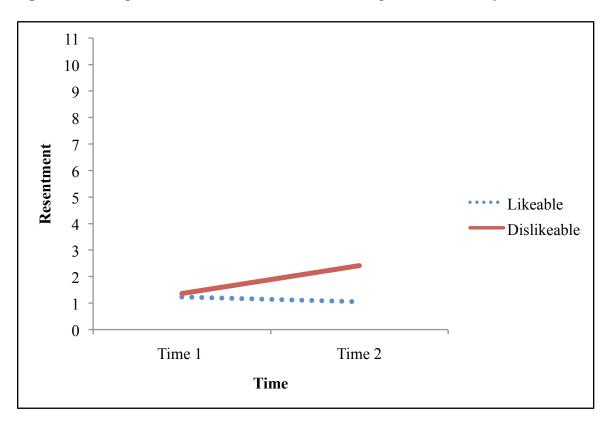


Figure 3.6. Change in Resentment as a Function of Manipulated Likeability.

Figure 3.7. Change in Resentment as a Function of Manipulated Envy in Likeable Condition (top) and Dislikeable Condition (bottom).

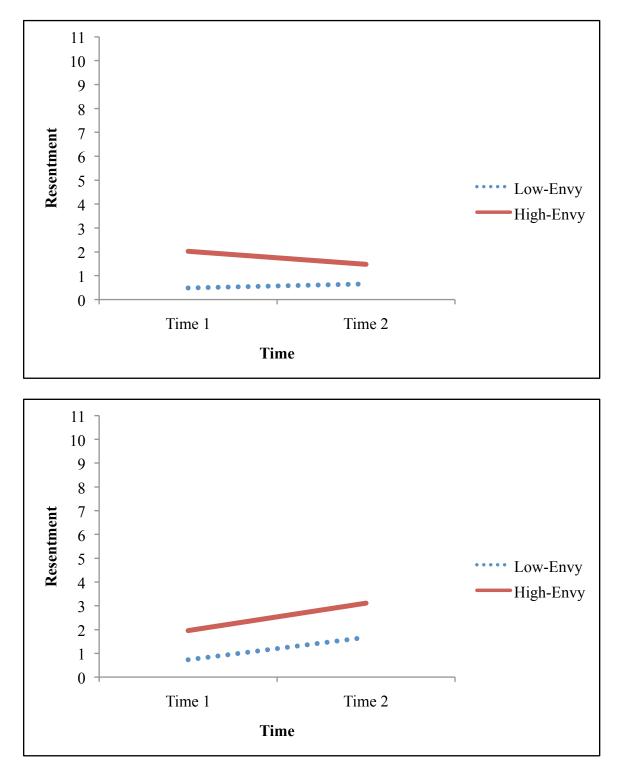
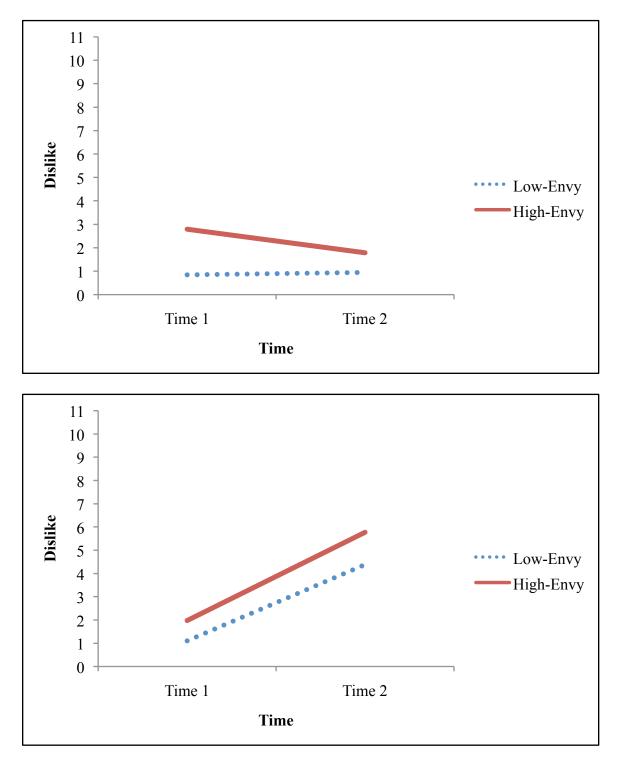


Figure 3.8. Change in Dislike as a Function of Manipulated Envy in Likeable Condition (top) and Dislikeable Condition (bottom).



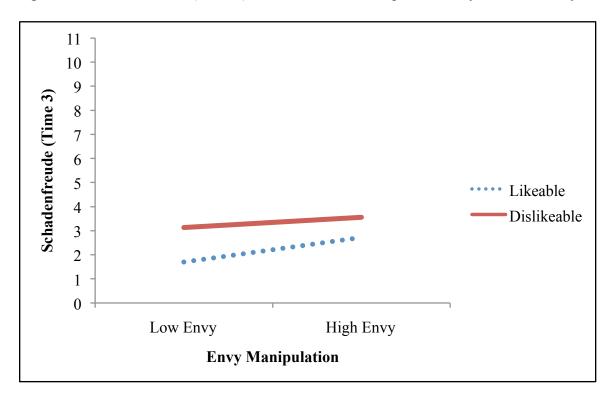


Figure 3.9. Schadenfreude (Time 3) as a Function of Manipulated Envy and Likeability.

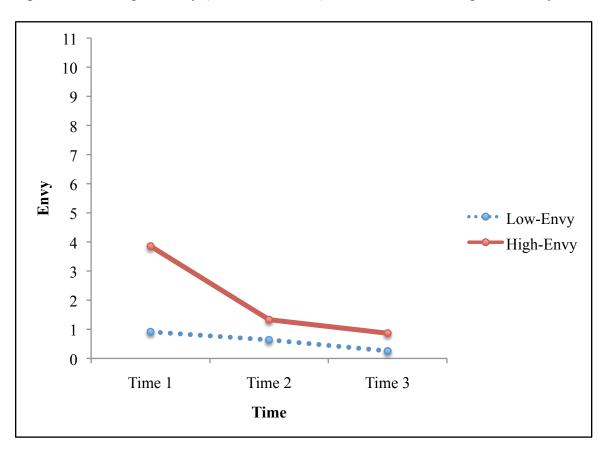
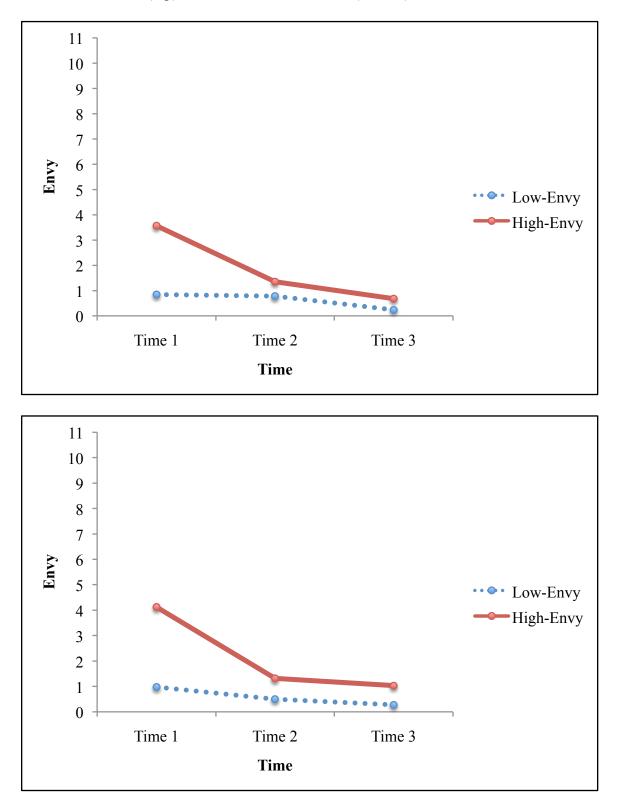


Figure 3.10. Change in Envy (Time 1 to Time 3) as a Function of Manipulated Envy.

Figure 3.11. Change in Envy (Time 1 to Time 3) as a Function of Manipulated Envy in Likeable Condition (top) and Dislikeable Condition (bottom).



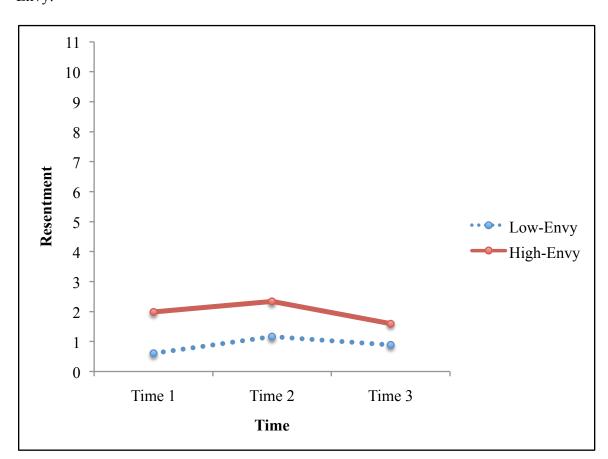


Figure 3.12. Change in Resentment (Time 1 to Time 3) as a Function of Manipulated Envy.

Figure 3.13. Change in Resentment (Time 1 to Time 3) as a Function of Manipulated Likeability.

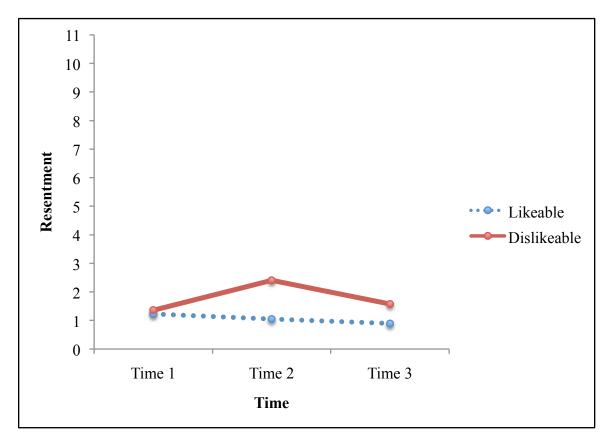
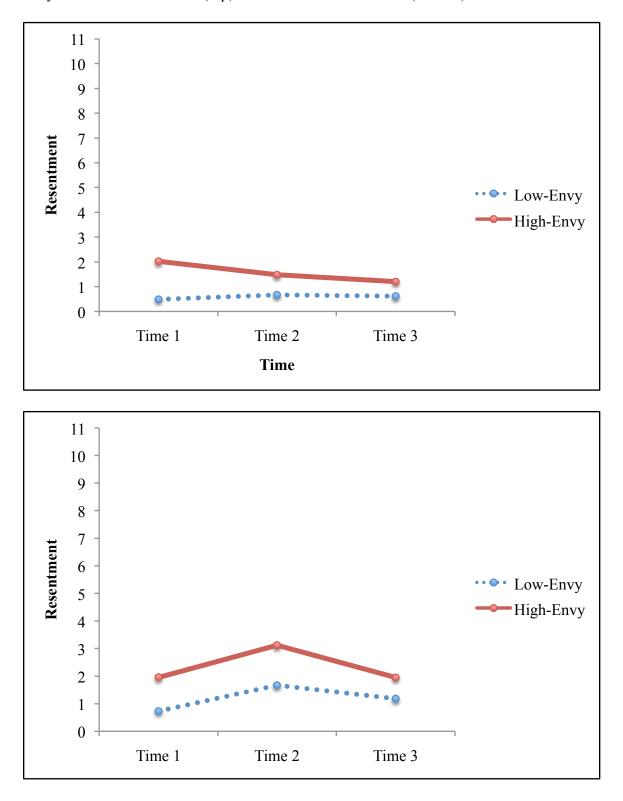


Figure 3.14. Change in Resentment (Time 1 to Time 3) as a Function of Manipulated Envy in Likeable Condition (top) and Dislikeable Condition (bottom).



Chapter Four: Discussion

Previous non-empirical scholarly work on envy suggests that envy tends to transform itself over time because people feeling this negative emotion usually need to cope with it in some way (e.g., Farber, 1966; Elster, 1998; Parrott, 1991; Smith, 2004). People feeling envy may defensively respond by nurturing their subjective sense of injustice and looking for ways to perceive the envied person as undeserving and dislikeable based on the envied person's moral faults (Smith & Kim, 2007). The purpose of the present study was to begin to examine this possibility empirically.

Findings for Manipulation Check

First, it is important to note that the manipulation of envy was effective in producing envy at time 1. This was important to establish so that any subsequent change in envy could be examined. Thus, borrowing from stimuli successfully used in prior research (Van de Ven et al., 2013), details about the target person were selected that would cover a range of domains that might create envy in participants, such as wealth, attractive looks, and academic achievements. Prior research has shown that it is difficult to produce strong envy in laboratory settings (unless one has the means to construct comparison dimensions to closely fit each participant). However, the mean value of 3.86 on a 12-point Likert scale in the high-envy condition surpassed the level often found in this prior research. Thus, there is reason to think that the present manipulation was all the more successful, creating a good starting condition to examine subsequent change. It is also worth noting that initial envy (time 1) was not affected by the manipulation of target likeability (see Figure 3.2). Of course, this manipulation occurred after this measure was taken, and so there should have been no effect. However, this lack of an effect is a small

bit of evidence that the procedure created an initial experience for participants that fit what was intended.

The manipulation of target likeability was also effective; the target person in the dislikeable condition was perceived as more dislikeable and more arrogant than in the likeable condition. Interestingly, there were additional effects for arrogance that were not present for likeability. The target person in the likeable condition was perceived to be more likeable as well as less arrogant than the target in the dislikeable condition, as seen in Figures 3.3 and 3.4. The effect of envy on perceived arrogance was greater when the target was likeable than when the target was dislikeable. In the likeable condition, targets were considered much more arrogant when the target was highly enviable as opposed to when the target was less enviable. In the dislikeable condition, perceived arrogance was slightly greater for the target that was highly enviable compared to the target that was less enviable. Why might this be?

Based on a theoretical understanding of how envy operates, one might have expected that the envy manipulation would have affected the likeability of the target as well as perceptions of arrogance. Perceiving the envied person as dislikeable fits with the view that such perceptions are themselves a way of coping with the envy, as this perception might justify the envying person's hostility. However, it may be that likeability, as a broad construct linked to multiple factors, is less affected by invidious social comparisons than perceptions of arrogance. Arrogance, by definition, is more precisely linked to relative differences; that is, an arrogant person sets him or herself above others. If a person feeling envy is motivated to derogate the envied target, perceiving this target as arrogant may be a more effective, fitting way to achieve this

derogation. Doing so acknowledges the target's "superiority" but undermines it in moral terms. Yes, the target is "superior" in certain ways, but this superiority is diffused by a moral "inferiority." Consistent with this logic, envy at time 1 was uncorrelated with the impression of likeability at time 2 (after the target likeability manipulation) but positively correlated with perceived arrogance at time 2.

The manipulation of target likeability was successful in another sense as well. One of the goals of this target likeability manipulation was to avoid too strong of a manipulation. If a target had been too arrogant, then, regardless of the level of envy, participants would have highly disliked the target person and would have found him or her highly arrogant, resulting in ceiling effects across all conditions. Instead, the aim was to create a relatively ambiguous and subtle manipulation of likeability that would allow the highly-envious participants (in the high-envy conditions) to interpret the target person's actions in ways that serve the goal of coping with their envy – thus reducing their envy and increasing their resentment. Such biased perceptions would not be expected to occur for participants in the low-envy conditions, of course. Importantly, the effect of envy on perceived arrogance was significant in both the dislikeable (F(1, 117) =7.82, p = .006) and the likeable conditions (F(1, 112) = 65.74, p < .001); in both conditions, perceived arrogance increased for participants in the high-envy condition compared with low-envy condition. Interestingly, this effect was especially pronounced for the likeable conditions (hence, the Envy X Target Likeability interaction). Also consistent with predictions for how a person might cope with envy, even the likeable person was perceived as more dislikeable by participants in the high-envy conditions compared to the low-envy conditions. Thus, derogating the target of one's envy appears

to be a strategy employed by envious people even in the absence of evidence of a target's immorality. In any event, the manipulation of target likeability created conditions in which the main hypotheses for the study would be tested.

Findings for Envy

Findings for envy partially supported the predictions. Envy was expected to decrease from time 1 to time 2 and, of course, this decrease was expected to be greater for the high-envy condition (where envy was created at time 1) than in the low-envy condition (where envy would not be expected to occur at time 1). This pattern did emerge (as was reflected in the Time X Envy interaction). However, this decrease in envy was also predicted to be influenced by whether or not the target was likeable or dislikeable, but as Figure 3.5 shows, this did not occur. Envy was markedly reduced regardless of whether a likeable or dislikeable statement was made by the target. Surprisingly, the results were nearly identical for both the dislikeable and likeable conditions.

Why was the effect for envy similar for both levels of target likeability? It is important to keep in mind that in the likeable conditions, there was little about the second article that would, logically, have caused participants to feel less envious toward the target person. The additional information about the target person indicated him or her being vice president of a fraternity or sorority and being a legacy member. This information would, if anything, potentially add a basis for envy rather than undermine it. It may be that envy naturally dissipates over time and that this is one way people cope with the emotion. Unless the person who is the trigger for the emotion has a long history of stimulating the emotion (not the case in the present study, of course), or, the invidious details are reintroduced, the natural course of the emotion is to disperse itself. People

may typically find ways to avoid being reminded of another's superiority. Whatever the reason, participants clearly felt less envious of the target person by time 2. Their feelings toward the target person were different, possibly transformed in some way. Consistent with the sense that these feelings were transformed, the correlation between envy at time 1 and envy at time 2 was only moderate, r(231) = .45, p < .01. One might have expected a stronger correlation between these measures, especially given that the items were the same and that a fairly short time period separated their completion.

Findings for Resentment

Overall, the results for resentment were consistent with expectations. Unlike envy, resentment was expected to increase from time 1 to time 2 and especially for the high-envy conditions compared to the low-envy conditions and when the target person was dislikeable compared to likeable. Generally, resentment did show an increase from time 1 to time 2. Moreover, this increase occurred in the dislikeable condition and not the likeable condition (see Figure 3.6). The higher order, 3-way interaction between time, envy, and target likeability revealed that when the target person was dislikeable, resentment increased equally for high- and low-envy conditions. When the target person was likeable, resentment decreased in the high-envy conditions and increased slightly in the low-envy conditions (see Figure 3.7). This increase in the low-envy/likeable condition might be because people resent a low-envy person's status as a leader in the fraternity or sorority and as a legacy member.

These findings suggest that resentment is indeed likely to increase over time if an envied target does something dislikeable. However, because the effect occurred even when the target was not envied, it is unclear the degree to which envy actually plays a

role. It is worth noting that envy at time 1 was correlated with resentment at time 1 (r = .55, p < .01) and well as resentment at time 2 (r = .45, p < .01), suggesting a link between these two reactions, despite the general pattern that envy decreased and resentment increased over time.

Findings for Dislike

The pattern of findings for dislike was very similar to what occurred for resentment. In addition to dislike being greater in the dislikable conditions compared with the likeable conditions, dislike was greater in the high-envy conditions than the low-envy conditions. As with resentment, dislike increased from time 1 to time 2, and the pattern did not differ as a function of the level of envy. Again, as with resentment, dislike decreased slightly in the likeable conditions and increased in the dislikeable conditions. Finally, a 3-way, higher-order interaction for time, envy, and target likeability showed that dislike increased from time 1 to time 2 (though for both high- and low-envy conditions) in the dislikeable conditions; but in the likeable conditions, dislike decreased in the high-envy conditions. In the low-envy condition, the likeable person was not enviable so there was very little dislike towards them in the first place. As noted above, dislike at time 1 was highly correlated with resentment at time 1 (r = .73, p < .01) and dislike at time 2 was highly correlated with resentment time 2 (r = .72, p < .01), clearly suggesting a close connection between these two reactions.

Findings for Schadenfreude

The results for schadenfreude only partially supported what was predicted. Rather than an Envy X Target Likeability interaction (indicating especially strong reports of schadenfreude in the high-envy/dislikeable condition), there was a marginal effect for the manipulation of envy and strong effect for the manipulation of target likeability. Schadenfreude was greater in the high-envy conditions compared to the low-envy conditions and in the dislikeable conditions compared to the likeable conditions. Both effects are consistent with prior findings linking both envy (Smith et al., 1996) and dislike (Hareli & Weiner, 2002) with schadenfreude. The weak effect of the manipulation of envy can be interpreted as generally consistent with the transformation of envy perspective. Since envy appeared to have dissipated by Time 2, it stands to reason that it would have a correspondingly weaker effect on a later reaction to another person's misfortune.

Findings for Change in Envy and Resentment Across Time 1 to Time 3

Consistent with the trends revealed from time 1 to time 2, envy decreased even further from time 2 to time 3, regardless of target likeability. Why did this occur? One explanation may be that, for reasons mentioned earlier, there was a continued tendency for envy to dissipate over time. In addition, the misfortune may have made the target person less enviable (and less likeable), especially given that it resulted from the target person's culpable actions. By contrast, resentment (although it tended to increase from time 1 to time 2 when the target made an arrogant statement), tended to go down in time 3. As the target person got what he or she deserved (and even admitted as much), there was probably less reason to feel resentful toward him or her.

Strengths and Limitations

There were quite a few strengths for the current study. First, there were relatively equal numbers of women and men in each of the conditions and yet there were no systematic gender effects. Next, with such a large sample size, the data allow more

precise parameter estimates, and of course, greater power to detect true differences among groups.

It is worth emphasizing that the manipulation of envy succeeded in creating fairly strong envy. This was, of course, a critical first task to achieve in order to then examine how envy might change. Creating strong envy in a laboratory setting is a challenge (e.g., Smith et al., 1996) and so having achieved this using the present procedure is a clear strength. It is worth emphasizing that the target likeability manipulation worked as designed as well. The additional information indicating the target person's arrogance created both dislike and the perception of arrogance in both the high- and low-envy conditions. It was important to create an effect for target likeability that was strong, but not so strong that reactions to the target person in the dislikeable condition lacked sufficient variability to be affected by the manipulation of envy.

Another strength of the current study was that there proved to be very little suspicion. Prior research shows that people tend to avoid admitting feelings of envy (e.g., Parrott & Smith, 1993), and so it is important to study envy under conditions in which participants are unaware of it being the focus of the research. This feature was maintained even though participants received three articles and gave their reports of envy three times. Furthermore, the minimal suspicion occurred even though the third article described a misfortune and asked that participants report their feelings of schadenfreude, an aspect of the procedure that might have proven to be reactive.

However, there are a number of limitations that still should be acknowledged. Although the overall patterns of findings fit predictions, the manipulation of envy was not affected by the manipulation of target likeability in the way that was expected.

Participants in the high-envy conditions did not appear to react to the target person's arrogance differently than those in the low-envy conditions. As noted earlier, this may have been because envy quickly dissipated. But it may also be that the initial envy must be even stronger than what was created in this study for such differential effects to occur. One classic study in the empirical literature on envy (Salovey & Rodin, 1984) was particularly effective in creating strong envy by doing two things: 1) maximizing the similarity in career goals and interests of the participant and the target, and 2) creating an initial failure experience suffered by the participant. We envy people who are most similar to ourselves, and we feel it most keenly if our self-worth is unsteady. It may be that a better test of the present ideas requires these features.

It may also be the case that the manipulation of target likeability was too strong. There may have been insufficient ambiguity in the target person's arrogant statement regarding Greek organizations to allow the perceptions of the statement to be influenced successfully by prior envy. In addition, attitudes toward and affiliations with Greek communities were not controlled for in this study. It is possible that some were influenced by their involvement in these organizations or brought their pro- or anti-Greek biases with them into the experiences and reports of envy as well as the other reactions, such as resentment and dislike of the Greek target.

Future Directions and Conclusions

Future research should focus on a number of issues. First, there would be value in replicating this study using an even stronger manipulation of envy, and, perhaps a slightly more subtle manipulation of target likeability. The stronger the envy, the more participants should be motivated to use the target person's arrogance to reduce their envy

and to increase their resentment. Furthermore, the more ambiguous the target person's arrogant statement, the more the statement can be construed in ways that serve this motivation and the less inclined low-envy conditions would be to reduce their reported envy.

Second, the procedure might be altered to take into account the possibility that envy very quickly dissipates. For example, an additional manipulation might vary whether or not participants are reminded of aspects of the target person's invidious attributes during time 2 in the procedure. Possibly, participants who receive such a reminder are correspondingly more likely to take advantage of the arrogant statement by increasing their resentment, and, ironically, decreasing their envy – more than those who do not receive a reminder.

Another direction to take would be to examine behavior consequences of those who are frustrated by not being given an opportunity to reduce their envy over a longer period of time. Do participants who receive constant reminders of their envy end up engaging in the kind of backbiting, social undermining, or indirect sabotage (e.g., Duffy et al., 2012; Smith, 2007) often attributed to invidious motivations? Or, does the chronic experience of envy lead to depression (Smith et al., 1994)? In the present study, the focus was on the dislikeable behaviors committed by the envied person. Would likeable behaviors, over time, actually lead to greater invidious frustration and hostility, because those constantly reminded of their envy enjoy no easy way to reduce the emotion or replace it with resentment? Clearly, there are many questions yet to be examined, and the present study is only an initial foray into this interesting but complex terrain.

Appendix A: Script, Debriefing, and Brief Explanation

Script

PREPARATION:

 Prepare for distribution of materials ahead of time by making sure that there are enough copies for the participants of the materials, and that the conditions are pre-sorted according to the randomization schedule. Put on lab coat.
 Materials to have ready: consent forms, manipulation packets, debriefing forms, permission to use data forms, pens.

PROCEDURE:

Greet the participants and have them take their seats. Pass out the consent form to the participants. Say:

First of all, let me thank you for signing up for this survey. My name is ______, and I am working with Dr. Richard Smith of the Psychology Department who is helping the University conduct this survey.

This is the consent form for the study that you are participating in today. Please read the form and sign it if you agree to participate. We have 2 for you today, one we are required to give you a copy to keep and the other we need you to sign and give back to us. Please pass it down to the ______ (*middle/center, whatever is appropriate*).

Receive Consents back.

Do you have any questions about the informed consent?

As you know, in the last couple of decades there has been a revolution in how we get information and news. There used to be a time when most people got news from one of the three major networks. But, these days, more and more people use alternative sources. Now there are literally hundreds of cable channels and untold numbers of internet sites that people take advantage of in order to get their information. Our study is interested in looking at different types of media, and to see how perceptions and feelings towards the content of news stories may change based on how the information is presented.

Basically, different types of media tend to cover the same events in different ways. Print media tends to give more extensive, detailed coverage than TV news, for example. But what about the internet? Not only is it detailed, but it is continually updating itself. Also, on internet news sources, you can often find instantaneous links or do searches for other related stories that you wouldn't get by flipping through the channels or thumbing through a paper.

We are looking at various ways different types of media cover events, from student and local newspapers, and the internet. In the condition that you will be in today, you will receive a series of three articles that happened to be about the same person and were

posted on the web edition of the Kentucky Kernel. So you have the internet condition. For each article we want you to give us your reactions to the content and the formatting. There are many factors that affect our judgments, so we will be taking into account and controlling for mood, personality, and emotions. Some of these measures will be repeated, so just be honest and give your frank opinion to help us control for these issues. This will include getting your views and impressions of the person who is the focus of these articles. We will also ask you questions about the articles to see how well you remember the facts we presented to you. Please read through the articles thoroughly.

Are there any questions?

OK. I am going to go ahead and pass out the articles. Please do not put your name on them. Instead, when you first get the packet, if you complete the mass testing at the beginning of the semester (the prescreening), please write your last six numbers of your student ID on the top yellow page.

We want your open and honest views. Just work your way through the materials in the order they are presented. Please do not look back at the articles if you can. When you receive your packet, you are free to get started. Once you are finished reading and answering all of the questions, just remain seated until everyone is finished. Thanks!

When everyone is done:

There are just a few more things we have to cover before you're all done.

Debriefing (except before permission to use, do the **Suspicion Feedback form**)

Pass out the "Permission to use Data" form.

When you are done, please just fold both the feedback and debriefing form you just signed in half, and tuck them into your packets. Hand those back to me, and grab a brief explanation from me on your way out. Thanks!

Once everyone has finished filling out the packets, collect the completed packets with the Suspicion Check and Permission to use Data forms folded inside.

Debriefing

First of all, let me thank you again for participating in this study.

What did you think of the study? What do you think is the main thing that we are interested in? Great. That's an interesting observation.

Now, I'd like to take a few minutes to tell you a little more about the purpose of this study and to get your feedback on how we might make the research better.

As you probably already know from PSY 100 class or from other experiments you may have been in, some kinds of psychological phenomena are especially tough to study.

One challenge has to do with participants being aware of exactly what is being studied in the first place.

For some types of behavior, knowing this information can actually make people change their behavior and their thinking in ways that prevent a clear understanding of the phenomenon itself.

For example, if I told you that we are interested in understanding the situations in which people help others, it is quite likely that my simply telling you this would increase the chances that you would be helpful in almost any situation. After all, most people want to see themselves as helpful people. As result, psychologists who study helping behavior often disguise their main focus so that they can get a sense of people's behavior when they <u>don't</u> have the expectation of helping placed in their minds.

This is not a method that is taken lightly. In fact, we would only take this approach if we can be confident that the risks to the participant are minimal, if the research is worth doing in the first place, and if there is no other way to tackle the research question. We have strict ethical guidelines that we have to follow.

As it turns out, this study also fits into this category of research. Did you have a sense that this might be the case?

I kind of figured you did.

We told you that we were interested in examining factors affecting college student's reactions to different types of media, such as video, internet, and print. The real purpose was to examine various factors that might influence reactions to negative events happening to others.

We were curious about how things such as envy and liking might affect people's reactions. In order to examine these issues, we asked you to read a few of articles that contained what appeared to be information about another student. This student was described as either having enviable characteristics or not, being either arrogant or not, and as having their setback be deserved. We asked you to fill out questionnaires for mood, self-evaluation, and trait judgments. We are figuring that envy and disliking will be strong reasons for mixed feelings, especially if the setback was deserved.

We wanted to examine these questions in a systematic way. And, we concluded that in order to do so we would need to wait until the end of the experiment to fill you in on our main interest.

It is important for you to realize that we randomly assigned you to one of the various conditions. The information we showed you was actually fictional. Although there are students that resemble the one you read about, the details of this particular story were constructed by us. We did this in order to examine your reactions under highly controlled conditions.

It's important for you to realize that the first article was constructed by us to create a very impressive person or one who was pretty average. The second article was also

constructed by us to come across as either a dislikeable or likeable target. The final article detailed a deserved misfortune for this person.

I don't want you leaving here thinking that these were real events. OK?

What do you think about the procedure?

OK, I'd like to show you an additional consent form we have in experiments of this kind.

This consent form allows you to make a decision about whether you still want your responses included in the research project, now that you know fully what the true purpose of the experiment was.

Here it is. Please read it carefully. Let me emphasize that you should feel no need to give your consent if there is any reason that you don't feel comfortable doing so. If you don't feel comfortable, we will immediately destroy your data.

OK. Thank you. Let me say again how much we appreciate your contribution to the research.

Are there any suggestions that you might have about how we could do the research in a more effective way?

Thanks once again. Here are copies of the consent forms and an explanation sheet telling you about the study and giving you some references to track down if you are interested.

By the way, one more thing. We'll be doing this study through the end of the semester, and we would really appreciate it if you waited till the end of the semester to talk about it. If students start hearing about this study and come in already knowing what the true purpose is, it could skew the results. Do you have any questions about this? Thanks!!!!

Brief Explanation

"The Effects of Types of Media"

Most of the time when bad things happen to other people we feel sympathy for them. But, sometimes, we can have mixed feelings. Our sympathy can be joined with a degree of pleasure over the setback. The purpose of this research is to explore some of the reasons why we can have such mixed feelings.

In order to examine these issues, we asked you to read a few articles that contained what appeared to be actual information about another student, who had a lot of advantages or who was fairly average in most respects. We had you read one of two articles about an arrogant or neutral advantaged person. We also asked you to complete various measures of mood, self-evaluation, and trait judgments. Finally, you read about a misfortune for the person who either was quite advantaged or not -- some of the outcomes were more deserved setbacks. We are expecting that people will have mixed feelings about the setback when they read about a deserved outcome that occurs to an arrogant advantaged person, especially.

It is important that you realize that we randomly assigned you to one of the various conditions. The information we gave you was actually fictional. Although there are students like the individual you read about and although the setbacks that the person experienced are not unusual, the details of this particular case were constructed by us. We did so in order to examine your reactions under the highly controlled conditions and in a situation in which your natural reactions could occur.

We will be conducting statistical analyses of the data from this research next semester. If you are interested in discussing the results, you can call Dr. Richard Smith (859-257-4473) or stop by his office (207 Kastle Hall) during office hours.

If you are interested in reading more about this kind of research, you can consult these references:

Heider, F. (1959). The psychology of interpersonal relations. New York: Wiley.

Smith, R. H. (2000). Assimilative and contrastive emotional reactions to upward and downward comparisons. In J. Suls & L. Wheeler (Eds.), <u>Handbook to social comparison processes</u>, New York: Plenum.

Appendix B: High-Envy, Female Article (Time 1)



http://www.kykernel.com/dynakernel/section.php?section=news.html

Do you have a job right now?

No, I used to have a job at Dick's Sporting Goods, which was fun. It gave me the first pick of a lot of things when they came in. But, I got overloaded with other activities and I decided to quit. It didn't seem necessary. Anyway, I want to focus on school as much as possible.

Has UK been tough academically for you?

Well, not really. I've gotten mostly A's so far. I must not have hit the hard, upper level classes yet. But, I want to go a top ranked law school, and so I know I need to keep my grades up. Down the road, the LSAT's get me a little worried, but I'm a good test-taker. At least I've done well on a Kaplan practice test. I'll probably take another test LSAT before I take the real one.

What do you like to do for fun?

I enjoy hanging out with my boyfriend. Sometimes we go to my parents' condo on the lake just to relax and chill out on the weekends. I also like to go out with my friends. Many of my friends are in sororities, so they keep me up to date on all the places to be throughout the week to catch a great party.

What did you do for Spring Break last year?

Last year my Spring Break was amazing. I got to go to Italy for a week. It was fantasticl I chose Italian as my foreign language so it was a good fit because my Italian got much better while I was there.

What are your plans for this Summer?

This Summer I've got an internship setup with the Kentucky Supreme Court. It's really hard to get into so I'm very excited. It's unpaid but my parents are going to help me out while I'm doing it.

We like to end our interviews with a fun question. What was your favorite birthday present this year?

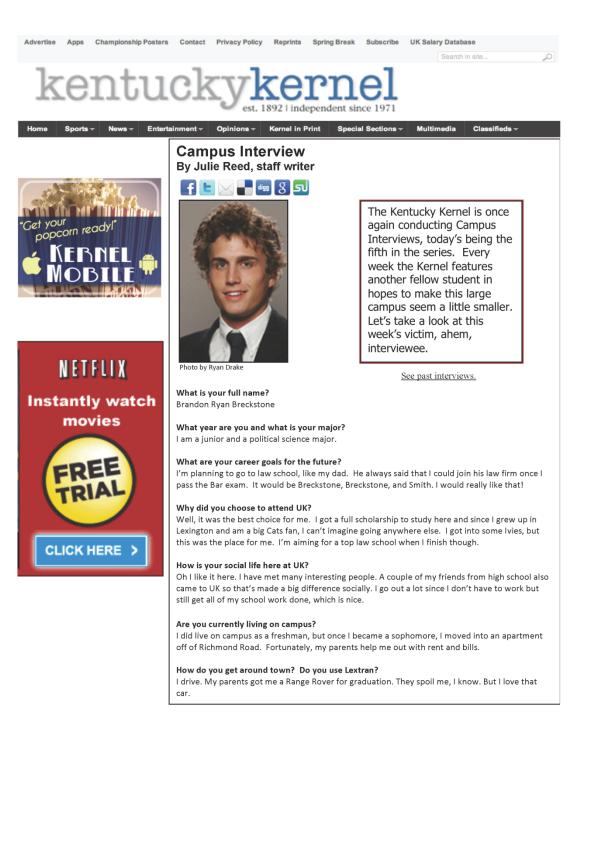
My parents got me this really nice flat screen TV which I like a lot. Watching the Cats play on it is just so much better, since it's HD. They surprised me...I didn't even ask for it and they just thought I'd like it. They were right



Leave a Reply

Enter your comment here ...

Appendix C: High-Envy, Male Article (Time 1)



http://www.kykernel.com/dynakernel/section.php?section=news.html

Do you have a job right now?

No, I used to have a job at Dick's Sporting Goods, which was fun. It gave me the first pick of a lot of things when they came in. But, I got overloaded with other activities and I decided to quit. It didn't seem necessary. Anyway, I want to focus on school as much as possible.

Has UK been tough academically for you?

Well, not really. I've gotten mostly A's so far. I must not have hit the hard, upper level classes yet. But, I want to go a top ranked law school, and so I know I need to keep my grades up. Down the road, the LSAT's get me a little worried, but I'm a good test-taker. At least I've done well on a Kaplan practice test. I'll probably take another test LSAT before I take the real one.

What do you like to do for fun?

I enjoy hanging out with my girlfriend. Sometimes we go to my parents' condo on the lake just to relax and chill out on the weekends. I also like to go out with my friends. Many of my friends are in fraternities, so they keep me up to date on all the places to be throughout the week to catch a great party.

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Last year my Spring Break was amazing. I got to go to Italy for a week. It was fantasticl I chose Italian as my foreign language so it was a good fit because my Italian got much better while I was there.

What are your plans for this Summer?

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We like to end our interviews with a fun question. What was your favorite birthday present this year?

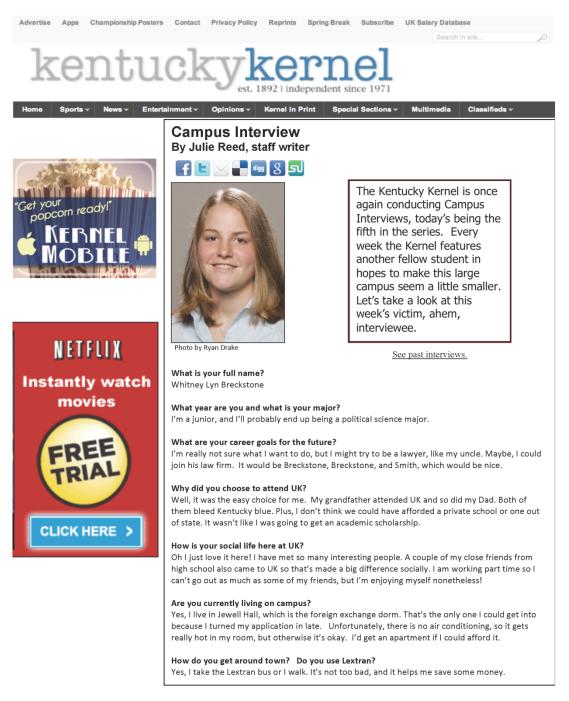
My parents got me this really nice flat screen TV which I like a lot. Watching the Cats play on it is just so much better, since it's HD. They surprised me...I didn't even ask for it and they just thought I'd like it. They were right



Leave a Reply

Enter your comment here ...

Appendix D: Low-Envy, Female Article (Time 1)



http://www.kykernel.com/dynakernel/section.php?section=news.html

Do you have a job right now?

Yeah, I've been working at Taco Bell for about a year now. I always come home smelling like onions and grease, which is gross. The money's OK though and I need to work unfortunately.

Has UK been tough academically for you?

Well, not to bad. Mostly B's. I guess I've got to get them up if I want to get into a good law school. Down the road, the LSAT's worry me a lot; I don't test well. I really bombed a practice Kaplan test. I'll probably try to take another test LSAT before I take the real one. All the testing is really expensive, so I'm not sure how I'll pay for everything.

What do you like to do for fun?

I enjoy hanging out with my friends. Sometimes we go camping or bike riding. I also like to go out. Many of my friends are in sororities, so they keep me up to date on all the places to be throughout the week to catch a great party.

What did you do for Spring Break last year?

Oh, nothing really. I had to work the whole time because I couldn't afford to take off or take a trip. It really wasn't much of a break at all to be honest. I did catch up on some sleep though, which I really needed.

What are your plans for this Summer?

Oh I'll probably just work and hang out with friends. I thought about doing Summer school but I really can't afford it and I need a break anyway.

We like to end our interviews with a fun question. What was your favorite birthday present this year?

Oh, I got a puppyl He's a golden Labrador retriever, and he's just adorablel My parents got him for me and he's named Buster.



Leave a Reply

Enter your comment here...

Appendix E: Low-Envy, Male Article (Time 1)



http://www.kykernel.com/dynakernel/section.php?section=news.html

Do you have a job right now?

Yeah, I've been working at Taco Bell for about a year now. I always come home smelling like onions and grease, which is gross. The money's OK though and I need to work unfortunately.

Has UK been tough academically for you?

Well, not to bad. Mostly B's. I guess I've got to get them up if I want to get into a good law school. Down the road, the LSAT's worry me a lot; I don't test well. I really bombed a practice Kaplan test. I'll probably try to take another test LSAT before I take the real one. All the testing is really expensive, so I'm not sure how I'll pay for everything.

What do you like to do for fun?

I enjoy hanging out with my friends. Sometimes we go camping or bike riding. I also like to go out. Many of my friends are in fraternities, so they keep me up to date on all the places to be throughout the week to catch a great party.

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We like to end our interviews with a fun question. What was your favorite birthday present this year?

Oh, I got a puppyl He's a golden Labrador retriever, and he's just adorablel My parents got him for me and he's named Buster.



Leave a Reply

Enter your comment here...

Appendix F: Survey Measures

Reactions to Types of Media

I. Control Mood Measure

The main article on the web page you just read concerned Whitney Breckstone, a student at the University of Kentucky. Please indicate how reading the article made you feel <u>about or toward Ms. Breckstone</u> by selecting a number on the scale below that best fits your view and then entering it in the space next to each item.

	0 None At all	1	2	3 4	5	6	78	9	10 11 Great Amount
1		roud of ourself	11		oes not ve advantag		Excited for her	31	_ Inspired by her
2	E		12	Hosti her	ile toward	22	Helpless	32	_ Confident
3		anting to hat he has	13	Respe	ect for her	23	Bothered by her	33	_ Ashamed
4	A he		14	Disgu her	isted by	24	Admiring of Admiring of	34	_ Happy for her
5		he is fairly Ivantaged			nant over Ivantages	25	She deserve her advantag		Resentful toward her
6	In he	ferior to er	16	She is advan		26	Secure	36	Pleased for her
7	M	ad at her	17	Grud her	ge against	27	Weak	37	Disrespect for her
8		ow regard or her	18	_ Angry	at her	28	Powerless	38	Contempt for her
9		he has an 1just advar			e toward	29	Look up to her	39	Inadequate
10.		lealous of 1er	20	_ High r	egard for	30	She has a just advant		Irritated by her

II. Reaction to Article

The first article on the web page you just read concerned Whitney Breckstone, a student at the University of Kentucky. Please answer the following questions about the content of the article. <u>Please do not turn back to the article, but answer as best as you can</u>. Either circle the response you think is correct, or fill in the short answer depending on the question.

1. What are Whitney's career goals?

(a.) Doctor	(b.) Lawyer
(c.) Teacher	(d.) She was unsure

2. Does Whitney currently have a job?

(a.) Yes (b.) No

3. Where does Whitney live?

(a.) In an apartment	(b.) In Jewell Hall
(c.) In Park Plaza	(d.) In Donovan Hall

4. List one of the activities or organizations that Whitney participates in

6. Please rate how interesting you found the article to be (0 being not at all, 11 being a great amount):

III. Control Mood Measure

The main article on the web page you just read also mentioned Whitney Breckstone. Please indicate how reading the article made you feel <u>about or toward Ms. Breckstone</u> by selecting a number on the scale below that best fits your view and then entering it in the space next to each item.

	0 1 None At all	2	3 4 5		7 8	9	10 11 Great Amount
1	Proud of yourself	11	She does not deserve advantag	21 ges	Excited for her	31	_ Inspired by her
2	Envious of her	12	Hostile toward her	22	Helpless	32	_ Confident
3	Wanting to what she has		_ Respect for her	23	Bothered by her	33	_ Ashamed
4	Annoyed by her	14	Disgusted by her	24	Admiring of her	34	_ Happy for her
5	She is fairly advantaged		_ Indignant over her advantages	25	She deserves her advantag	35 jes	Resentful toward her
6	Inferior to her	16	_ She is unfairly advantaged	26	Secure	36	Pleased for her
7	Mad at her	17	Grudge against her	27	Weak	37	Disrespect for her
8	Low regard for her	18	_Angry at her	28	Powerless	38	Contempt for her
9	She has an unjust advant		_Dislike toward her	29	Look up to her	39	Inadequate
10.	Jealous of her	20	_High regard for	30	She has a just advanta		

IV. Control Impression Measure

Please give <u>your impression of Ms. Breckstone</u> on the following traits by selecting a number on the scale below that best fits your view and then entering it in the space next to each item.

0 Not at al		2	3	4	5	6	7	8	9	10 Extre	
1	Like	eable		7	Adv	antaged		13	Int	elligent	
2	Arr	ogant		8	Trus	stworthy		14	M	oral	
3	Self	ish		9	Cor	nfident		15	M	ediocre	
4	Frie	ndly		10	Sel	f-Center	red	16. ₋	Sp	oiled	
5	Gen	uine		11.	Co	onceited		17	Fo	rtunate	
6	Gif	ted		12	Dis	shonest		18	Etł	nical	

V. Reaction to Article

Please answer the following questions about the content of the previous article. <u>Please do not turn back to</u> the article, but answer as best as you can. Either circle the response you think is correct, or fill in the short answer depending on the question.

1. List one of the positive things mentioned for joining the Greek life.

2. What current event spurred this article about Greek Life?

3. Whitney Breckstone was what position for her sorority?

VI. Control Mood Measure

The follow-up article on the web page you just read also concerned Whitney Breckstone. Please indicate how reading the article made you feel <u>about or toward Ms. Breckstone</u> by selecting a number on the scale below that best fits your view and then entering it in the space next to each item.

	0 1 2 None At all	3	4	5	6	7	8	9	10	11 Great Amount
1	Amused by what has happened to her	11	sm	ile beca	t a little use of appened		de	eling tha serves v ppened	vhat ha	as
2	Displeased over what has happened to her				by what red to her					her
3	Disrespect for her	13		nger for ppened		23	Indi	gnant t	oward	her
4	Sympathy for her	14			hat she for what ed to her	24	Fee go	eling tha ot what	at she she des	served
5	Admiration for her	15	Dis	like tow	ard her	25	Dis	gusted l	oy her	
6	Jealous of her	16	Cor	ncern fo	r her	26		sfied ov happen		
7	Bothered by her	17	Infe	erior to l	her	27	Env	ious of	her	
8	High regard for	18	Re	sentful 1 her	toward	28	Res	spect fo	r her	
9	Hostile toward her	19		d for wh bened to		29	Lo	w regar	d for h	er
10.	Grudge against her	20	Irri	tated by	y her	30		ased by bened to		has

VII. Using the scale below, please indicate how much compensation from her credit card company, if any, should Ms. Breckstone receive for money lost due to credit card fraud after her wallet was stolen:

0	1	2	3	4	5	6	7
No Co	ompensation for	loss				Complete Com	pensation

Amount of compensation (0-7)

VIII. Responses to Journalistic Style and Content:

1. To what extent did the fact that follow-up article came from the <u>same news source</u> help in understanding the article?

	1	2	3	4	5	6	7	8	9	10	11
	Not at al	1									A Lot
2.	To what	extent	did you	think the	hat the 6	coverag	e was fa	air to th	e studer	nt?	
	1	2	3	4	5	6	7	8	9	10	11
	Not at al	1									A Lot

3. To what extent did reading this second article cause you to want to learn more about the student?

1	2	3	4	5	6	7	8	9	10	11
Not at all	l									A Lot

4. To what extent did the formatting of the three articles (such as the use of italics, bold words) help in understanding the article?

1	2	3	4	5	6	7	8	9	10	11
Not at all										A Lot

5. To what extent did the formatting of the article help in remembering details from the article?

1	2	3	4	5	6	7	8	9	10	11
Not at all										A Lot

6. Without looking back at the articles, please indicate name of the staff writer for the articles:

First article:	Second article:
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Third article:

7. Do you have any specific suggestions for how the article or web page could have been structured differently or more effectively? How can we improve your interest level?

IX. Your Demographic Information:

1. Major: ____

 2. Gender:
 3. Age:
 4. Ethnicity:

X. Study reactions:

1. Do you have any general reactions to the study?

2. What do you think was the main purpose of the study?

Appendix G: Dislikeable, Female Article (Time 2)

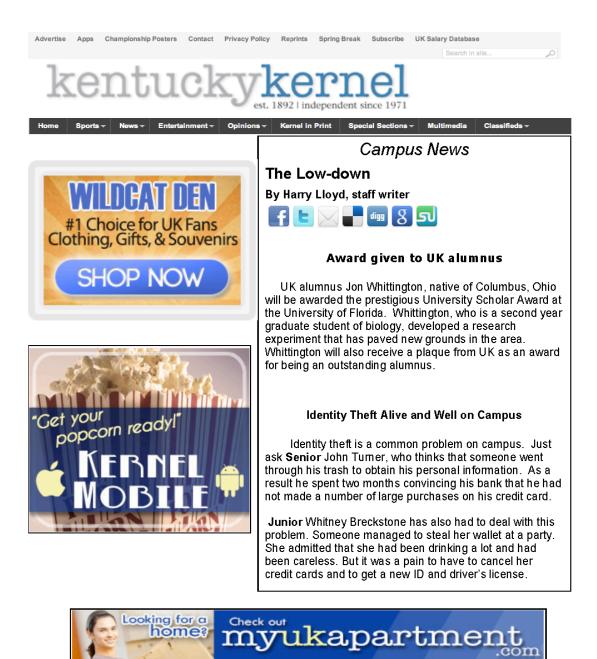




Appendix H: Likeable, Female Article (Time 2)



Appendix I: Identity Theft Misfortune, Female Article (Time 3)



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Appendix J: Suspicion Feedback

Feedback

We encourage you to be honest and frank with us for this feedback. Your responses will help us to make our studies better in the future.

If you were disbelieving about the purpose or goals of the study, at what point did you get these feelings? How much do you think these suspicions affected your responses? Were you able to ignore the suspicions and still go with the questions as if it was a real situation?

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Vita

Chelsea Marie Cooper

Degrees Awarded United States Air Force Academy B.S. in Behavioral Sciences, 2011

Professional Positions Held United States Air Force Officer, 2LT

Publications

Hoogland, C. E., Schurtz, D. R., Cooper, C. M., Combs, D. Y., Brown, E., & Smith, R.
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____Chelsea M. Cooper_____ Signature