

**Perceptions of Extrinsic IER Consequences for Positive and Negative Scenarios**

Research Thesis

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by

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### **Abstract**

Interpersonal emotion regulation describes how people regulate other's emotions by modifying or maintaining their occurrence, frequency, or intensity. There are positive benefits to engaging in interpersonal emotion regulation. However, at the individual level, people tend to engage in emotion regulation more so and with more effort for their negative emotions and experiences. This study directly addresses how a negativity bias may arise in interpersonal emotion regulation interactions and potential individual differences associated with responding in interpersonal scenarios. Undergraduate students (N = 107) were presented with vignettes depicting both negative and positive scenarios and were asked questions to assess their anticipated interpersonal emotion regulation responses. Participants also completed self-report measures assessing envy, the tendency to make social comparisons, and self-absorption. I hypothesized that participants would be more likely to respond, put forth more effort, and perceive their responses to be more urgent for negative scenarios than positive scenarios. Secondly, I hypothesized that envy, social comparisons, and self-absorption would be associated with these outcomes. Consistent with my first hypotheses, I found participants were more likely to report they would respond, with effort and urgency for negative, compared to, positive scenarios. Additionally, I found that public self-absorption tended to be associated with more responsiveness in negative scenarios. Therefore, this study provides a basis for understanding the negativity bias in interpersonal emotion regulation and potential individual differences that may be associated with an individual's tendency to respond with interpersonal emotion regulation in negative or positive situations.

## **Introduction**

### **Emotion Regulation**

Emotion regulation is the process of modifying or maintaining the occurrence, duration, or intensity of one's emotions (Eisenberg et al., 2000). According to Tamir (2016), one of the defining features of emotion regulation is that this process is goal driven with one of the most common emotion regulation goals being to change the direction or strength of the emotional state. In short, people can aim to increase the strength or intensity of an emotion state, known as "upregulation," or they can aim to decrease the strength or intensity of the emotion state, which is called "downregulation" (Zaki & Williams, 2013).

People are most likely to engage in strategies that would down-regulate their negative emotions as opposed to upregulating their positive emotions (Gross, 2015). This may be because negative emotions and experiences tend to have longer-lasting effects than positive emotions or experiences or it may be because negative emotions are thought to give us more important or timely information about our environments (Baumeister et al., 2001; Gross, 2015). For example, a study by English et al. (2017), assessed the emotion regulation strategies that people tend to use in their daily lives. In this study, college students were asked to complete daily diaries in which they described if, how, and why they regulated their emotions. They hypothesized that participants would engage in down-regulation strategies when they experienced negative emotions and up-regulation strategies when they experienced positive emotions. They found that participants tended to engage in emotion regulation more often and used more effort to regulate their negative emotions than their positive emotions. These authors also found that the environment, past experiences, and goal for the interaction were differentially associated with the decision of which emotion regulation strategy to use. In general, understanding emotion

regulation is important because successfully regulating one's emotions has positive benefits cognitively, psychologically, and socially (Gross, 2015). Specifically, there is evidence that more frequent experiences of positive emotions are associated with overall well-being and building resources (Fredrickson, 2000; Livingstone & Srivastava, 2012) and that less frequent experiences of negative emotions is associated with overall well-being and satisfaction with life (Diener et al., 1999; Houben et al., 2015). Therefore, understanding the differences in engaging in emotion regulation in the context of positive and negative emotions is important because of the ways in which emotion regulation and emotional experiences impact functioning.

### **Extrinsic Emotion Regulation**

Most of the research on emotion regulation has focused on individual efforts to change the frequency, duration, or intensity of emotional experiences (Dixon-Gordon et al., 2015). However, other people play an integral role in how an individual responds to or copes with emotional experiences. The concept of extrinsic interpersonal emotion regulation (IER) describes the goal of regulating another's emotions through the same processes and strategies that one might use to regulate their own emotions (Zaki & Williams, 2013). In interpersonal emotion regulation, there is a regulator and a receiver. The regulator modifies the receiver's emotions depending on the social context and the goal of the process (Ford & Gross, 2018; Zaki & Williams, 2013). Similarly to emotion regulation at the individual level, both up-regulation and down-regulation strategies are frequently used to change the trajectories of positive and negative emotions. In fact, upregulating positive emotions in an interpersonal context is associated with better overall mood (Schacter & Margolin, 2019), lower depressive symptoms (Morris, et al., 2015), and higher daily well-being (Morelli, et al., 2015). Ford & Gross (2018) theorized that the beliefs associated with emotions impact which regulation strategies for extrinsic interpersonal emotion regulation. A layperson tends to believe that negative emotions are "bad" and positive

emotions are “good” (Baumeister et al., 2001; Ford & Gross, 2018). If a person has those beliefs, then during the process of deciding if emotion regulation is needed and which strategy to use, they hypothesized that people may emphasize emotion regulation for negative emotions because they are considered “bad” and “uncontrollable” and that these people would engage in more emotion regulation, particularly down-regulation strategies (Ford & Gross, 2018).

Capitalization is the process of sharing good news when something positive happens in the service of upregulating the positive emotions associated with the event. This process has benefits for the capitalizer (i.e., sharer) and the responder (Peters et al., 2018). Capitalization is unique in that it does not require a shared positive experience, yet the retelling of the positive experience ultimately leads to the creation of a shared positive experience (Peters et al., 2018). Another important aspect of this process is the idea that even events that are associated with low intensity positive emotions can have a lasting impact on the responder and the capitalizer because of the interpersonal process.

As noted, experiences of capitalization can increase positive affect (Gable et al., 2004). This cultivation of positive emotions for oneself has positive impacts on psychological functioning (Fredrickson, 2013). The broaden-and-build theory describes the responses that an individual has when feeling positive emotions. This theory posits that the experience of positive emotions broadens an individual’s perspective, thoughts, and actions as opposed to the narrowing of perspective, thoughts, and actions associated with negative emotions. Next, according to the theory, broadening one’s thoughts and actions can then lead to an increase in social, psychological, and physical resources acquired by the individual (Fredrickson, 2001). The final aspect of this theory explains that through the creation of these resources, the individual is better suited during future times of distress or crisis. Moreover, positive affectivity is related to increases in relationship functioning and interpersonal emotion regulation (Gable & Reis, 2010).

At the interpersonal level, a successful experience of capitalization has been shown to produce benefits such as satisfaction and commitment in relationships (Gable et al., 2004).

### **Potential Associated Variables for Interpersonal Emotion Regulation**

Given the benefits of engaging in upregulation of positive emotions, particularly in an interpersonal context, it is important to understand why this is an under-utilized emotion regulation strategy. In understanding why people might prioritize downregulating negative emotions over upregulating positive emotions in interpersonal contexts, several factors might be relevant. Specifically, the tendency for social comparisons, self-absorption, and experiences of envy could potentially be associated with the tendency to engage in downregulation of negative emotions or upregulation of positive emotions in interpersonal contexts. Social comparisons are the ways in which people compare themselves to others or other people's situations (Wood, 1996). The frequency with which people compare themselves to others has been associated with both positive and negative consequences (Kleinke & Miller, 1998; Gibbons & Buunk, 1999). According to the theory regarding social comparisons, people should be happy or have a sense of self-enhancement when they compare themselves to people they believe are not as well off. Alternatively, more engagement with social comparisons has also been associated with increases in experiences of guilt, regret, and behaviors such as blaming others and lying (White et al., 2006). Therefore, those higher in social comparisons might be less likely to engage with others who are reporting positive events and emotions. Another factor to consider in terms of prioritizing negative emotions is self-absorption. There are two aspects of self-absorption, private and public (Nasby, 1989). Private self-absorption refers to the frequency with which a person thinks about themselves. Public self-absorption refers to the frequency of thinking about other people thinking about oneself (McKenzie & Hoyle, 2008). This concept of excessively thinking about oneself has been associated with maladaptive functioning, affect, and cognition

(Ingram, 1990; Öngen, 2015). It is possible that those who are higher in self-absorption might have a difficult time disengaging from their own emotions and thoughts to participate in interpersonal emotion regulation with others. Lastly, envy has been defined as an unpleasant emotion that arises from feelings of inferiority or inadequacy due to the desire for an element that another individual has (Smith et al., 1999). In a review paper, Smith & Kim (2007) found that people tend to envy others whom they perceive as similar to themselves, therefore, it may be likely that people would feel higher levels of envy for people they see and interact with frequently or in common experiences. One of the aspects that makes envy important to understand and study is that envy can lead to aggressive and hostile behaviors (Smith & Kim, 2007). Each of these factors could be associated with the ways people respond and behave in interpersonal contexts.

Based on the research, increasing one's own positive emotions and the positive emotions of others is beneficial. However, as noted, individuals tend to prioritize their negative experiences and the negative experiences of others in emotion regulation. The relative lack of engagement in interpersonal emotion regulation of positive emotions might be costly for both individuals and their social networks.

### **Current Study**

Past research has not directly compared anticipated responses to positive and negative interpersonal emotion regulation scenarios. Therefore, there are two main aims for this current study. First, I seek to determine whether a bias exists in anticipated responding to positive and negative interpersonal emotion regulation scenarios. Furthermore, this study provides a basis for identifying potential individual differences that may be associated with anticipated responding in negative and positive scenarios.

**Hypotheses**

*1a:* Participants will report being more likely to respond with interpersonal emotion regulation in negative scenarios as opposed to positive scenarios.

*1b:* Participants will report that they would put forth more effort in responding to people in negative scenarios as opposed to positive scenarios.

*1c:* Participants will report perceiving the need for a response to be more urgent in negative scenarios compared to positive scenarios.

*2a:* Likelihood of responding will be associated with self-reported envy, tendency to make social comparisons, and self-absorption.

*2b:* Anticipated effort of response will be associated with envy, tendency to make social comparisons, and self-absorption.

*2c:* Anticipated urgency of response will be associated with envy, tendency to make social comparisons, and self-absorption.

**Methods**

A total number of 113 Ohio State University undergraduate students recruited from the Department of Psychology's Research Experience Program (REP) participated in the study. Participants had to be at least 18 years old to be included in the study. Participants were excluded if they failed to answer the attention check questions accurately, had substantial data missing, or they failed to complete the entire study. Specifically, five participants were excluded because they did not complete any of the measures. Additionally, one participant completed part of the Social Support and Social Savoring Questionnaire but none of the other measures of interest,



therefore, there was not sufficient data and the participant had to be excluded. With these exclusions, the total number of participants was  $N = 107$ .

## **Procedures**

To begin the study, participants were asked to sign a consent form. After signing the consent form, participants completed a Qualtrics survey of measures assessing symptoms of psychopathology, emotion regulation strategies, features of personality, mental health questionnaires, and a novel measure used to assess willingness to provide interpersonal emotion regulation to others dependent upon the valence of the event. In total, there were 22 measures including attention check questions and a demographic questionnaire in the parent study. However, for this project, only four measures were included. The survey took approximately 1 hour to complete. Once the participants finished the survey, they were credited with 1 REP credit.

## **Self-Report Measures**

*Attention Check Questions.* Attention check questions were used throughout the survey to ensure the integrity of responses. There were three attention check questions randomly placed throughout the study. Participants had to answer all three of the questions correctly to be included in this study.

*Demographics Questionnaire.* Participants answered questions about their age, sex, race, ethnicity, sexuality, relationships, religious orientation, and employment.

*Dispositional Envy Scale (DES).* The DES (Smith, et al., 1999) is an 8-item scale, with reliability ( $\alpha = 0.885$ ), assessing individual tendencies to envy. Using a 5-point Likert scale from 1 (*Strongly disagree*) to 5 (*Strongly agree*) participants rate their agreement with statements such

as, 'Feelings of envy constantly torment me' and 'It somehow doesn't seem fair that some people seem to have all the talent.' Higher total scores indicate higher levels of envy.

***Iowa-Netherlands Comparison Orientation Measure (INCOM).*** The INCOM (Gibbons & Buunk, 1999) is an 11-item self-report measure ( $\alpha = 0.785$ ) used to assess individual differences in social comparison orientation. Participants respond to items such as, 'I always pay a lot of attention to how I do things compared with how others do things' using a Likert scale from *Disagree strongly* to *Agree strongly*. Higher scores indicate higher frequencies of engaging in social comparisons.

***Self-Absorption Scale (SAS).*** The SAS (McKenzie & Hoyle, 2008) is a 17-item measure of private ( $\alpha = 0.842$ ) and public ( $\alpha = 0.877$ ) self-absorption. Participants respond with a 5-point Likert scale from 1 (*Not at all like me*) to 5 (*Very much like me*). A sample item of private self-absorption is, 'I think about myself more than anything else.' A sample item of public self-absorption is, 'I have difficulty focusing on what others are talking about because I wonder what they're thinking of me.' Higher scores for each subscale indicate higher self-absorption.

***Social Savoring and Support Questionnaire.*** The Social Savoring and Support Questionnaire is a 208-item self-report scale created for this study. Participants read 16 vignettes in which another person has experienced a negative situation and expressed negative emotions or a positive situation with associated positive emotions. Participants then respond to follow-up questions assessing their emotions, thoughts, and hypothetical responses to these social situations.

The Social Savoring and Support Questionnaire assesses an individual's willingness to provide support in either positive or negative scenarios. There are 16 vignettes that each of the participants read and answered subsequent follow-up questions to; 8 of the vignettes describe

negative situations for others and 8 of the vignettes describe positive situations for others. The vignettes encompass many domains of life including work, academics, sports, and relationships. In this questionnaire, we refer to “other” in the vignettes as a friend, lab partner, co-worker, teammate, classmate, or family member. Differentiating the relational context of the person in the vignettes may or may not increase or decrease the willingness to reach out in each situation. In the survey, the vignettes are in random order. After reading a vignette, the participant responds to 13 follow-up questions.

For this study, three follow-up questions were measured as outcomes. Participants were asked to indicate how likely they would be to reach out to the person in the social situation. Participants used a 6-point scale to indicate the likelihood from *Not at all likely* to *Extremely likely*. Responses were summed and averaged to develop two total scores, one positive and one negative, for perceived likelihood to respond to the situations depending on the valence of the situations. Participants then used a Likert Scale to explain the amount of time and effort they would be willing to spend on the person in the social situation from 0 (*I would not respond*) to 5 (*any amount of time or effort*). Responses were summed and averaged to develop two total scores, one positive and one negative, for perceived effort in responses to the situations depending on the valence. Lastly, a follow-up question assessing hypothetical thoughts focused on the urgency of responding to the situation, ‘I need to be there for them right now.’ Participants used a Likert scale from *Not at all likely* to *Extremely likely* to indicate their perceived urgency in responding to the social scenarios. Scores for these questions were summed and averaged to develop two total scores of “urgency,” one score for positive scenarios and one score for negative scenarios. A full description of the measure including examples of the vignettes and the follow-up questions is provided in the Appendix.

## Results

## Demographics

Before completing my statistical analyses, I conducted descriptive statistics on the relevant demographic and participant characteristics. A complete overview of these descriptive statistics can be found in Table 1. Participants were aged 18-24. The majority of participants self-identified as White ( $n = 66, 61.7\%$ ), and identified as Female ( $n = 57, 53.3\%$ ). I also conducted descriptive analyses regarding mean and standard deviation for each of the four measures described in the previous section. The descriptive information for those measures can be found in Table 2.

## Correlational Analyses

There were several significant correlations. INCOM scores were significantly negatively correlated with scores for perceived effort for responses in positive scenarios ( $r = -0.219, p < 0.05$ ). Scores for self-absorption, specifically private-self-absorption, were significantly negatively correlated with scores for likelihood of responding in negative scenarios ( $r = -0.208, p < 0.05$ ). Lastly, responses for DES were significantly negatively correlated with scores for likelihood of responding in negative scenarios ( $r = -0.218, p < 0.05$ ). These correlations can be observed in Table 2.

## Primary Analyses

The first three hypotheses assess whether participants would be more likely to respond to, do so with more effort, and feel as though it was urgent to respond to negative scenarios than positive scenarios. Using a series of paired-samples  $t$ -tests, I evaluated Hypotheses 1a-c. For Hypothesis 1a, I found that participants indicated they would be significantly more likely to respond in negative scenarios than positive scenarios ( $t(106) = -10.42, p < 0.001$ ). For Hypothesis 1b, participants' responses concluded that they perceived they would provide more

effort in their responses in negative scenarios as opposed to positive scenarios ( $t(106) = -13.76, p < 0.001$ ). Lastly, for Hypothesis 1c, participants reported feeling as though it was significantly more urgent to respond to negative scenarios than positive scenarios ( $t(106) = -16.530, p < 0.001$ ).

### **Regression Analyses**

For hypotheses 2a-c, I hypothesized that anticipated responses would be associated with envy, a tendency to make social comparisons and self-absorption. To analyze these hypotheses, I ran a series of linear regression models. Analyses were conducted separately for negative versus positive scenarios.

### **Regression Analyses for Likelihood of Responding**

The relationship between each of the individual difference constructs and likelihood of responding in negative scenarios was examined. The linear regression analysis revealed a statistically significant model,  $F(4, 100) = 3.484, p = 0.01$ . This model was significant when including the variables, envy, social comparisons, and private and public self-absorption. These variables accounted for 12.2% of the variance in likelihood responses in negative scenarios. Separately, envy ( $\beta = -.265; p = 0.013$ ), private self-absorption ( $\beta = -.285; p = 0.015$ ), and public self-absorption ( $\beta = .251; p = 0.049$ ) were significantly associated with likelihood of responding in negative scenarios when considering all the variables in the model. Both envy and private self-absorption had a negative relationship with likelihood of responding in negative scenarios indicating that as people were more envious or more privately self-absorbed, they were less likely to report they would respond to others in negative situations. On the other hand, public self-absorption had a positive relationship with likelihood of responding in negative scenarios

indicating that as people were more publicly self-absorbed, they also tended to report they would be more likely to respond to others in negative scenarios.

Next, regression analyses examining the potential relationships between the individual difference constructs and likelihood of responding in positive scenarios were conducted. The model, including envy, social comparisons, and self-absorption was not statistically significant,  $F(4,100) = 1.621, p = 0.175$ . However, of the individual difference variables, private self-absorption was significantly related ( $\beta = -0.275; p = 0.024$ ) with likelihood of responding in positive scenarios. In this case, as people were more privately self-absorbed, they also tended to be less likely to respond to others in positive scenarios.

### **Regression Analyses for Effort of Responses**

Hypothesis 2b was focused on the relationship between the individual differences constructs and effort in responses in either negative or positive scenarios. Specifically for negative scenarios, the model including envy, social comparisons, and self-absorption was not statistically significant,  $F(4, 100) = 1.045, p = 0.388$ . The next linear regression analysis was focused on the relationship between the individual difference constructs and effort of response in positive scenarios. The model including all the constructs was also not statistically significant,  $F(4, 100) = 1.157, p = 0.334$ . These results indicate that within a model including each of these individual constructs, those constructs did not have a significant relationship with effort of responses in either negative or positive scenarios.

### **Regression Analyses for Urgency of Responding**

For hypothesis 2c, I ran linear regression analyses to test the associations between perceived urgency to respond to negative or positive scenarios and tendency to compare oneself to others, envy, and self-absorption. For negative scenarios, the model was not statistically

significant,  $F(4, 100) = 2.150, p = 0.08$ ). However, the association between public self-absorption, specifically, and perceived urgency to respond in negative scenarios was significant ( $\beta = 0.333; p = 0.011$ ) when including all the individual constructs in the model. These results indicate that as people were more publicly self-absorbed, they were more likely to perceive negative scenarios to be more urgent to respond to. In terms of positive scenarios, the model including each of the individual difference constructs was also not statistically significant,  $F(4, 100) = 0.712, p = 0.585$ ). These analyses indicate that within the model including all individual difference constructs, those constructs were not significantly associated with perceived urgency responses in negative or positive scenarios.

### **Discussion**

Hypotheses 1a-c were supported. I found that participants reported that they would be more likely to respond with interpersonal emotion regulation in negative scenarios than positive scenarios (Hypothesis 1a). Participants also indicated they would respond with more effort to negative scenarios than positive scenarios (Hypothesis 1b). Finally, participants reported that they would respond more urgently in negative scenarios than in positive scenarios (Hypothesis 1c). These results provide evidence to suggest a bias towards engaging in interpersonal emotion regulation in negative, compared to positive, scenarios. This is in line with past literature that suggests that negative emotions and events tend to be prioritized over positive emotions and events (Baumeister et al., 2001; English et al., 2017). Although it makes sense that people would prioritize downregulating negative emotions over upregulating positive emotions, based on previous literature foregoing the opportunity to engage in capitalizing on the successes of one's social network may limit potential for connection and positive emotions (Peters et al., 2018).

Therefore, this study added to the literature by focusing on this potential bias for interpersonal emotion regulation as opposed to intrapersonal emotion regulation.

This study also provides a basis for understanding the potential individual differences that may be associated with an individual's tendency to respond with interpersonal emotion regulation in negative or positive situations. To examine Hypotheses 2a-c, I tested the associations between individual difference constructs, specifically, envy, social comparisons and private and public self-absorption, and likelihood of responding, urgency of responses, and effort of responses in positive and negative scenarios. The results provided partial support for the hypotheses.

Envy and both private and public self-absorption were related to the likelihood of responding in negative scenarios, however, the directions of these relationships differed. Participants with higher levels of envy also tended to be less likely to respond in negative scenarios. Similarly, participants with higher levels of private self-absorption also tended to be less likely to respond in negative scenarios. However, participants with higher levels of public self-absorption tended to be *more* likely to respond in negative scenarios. Private self-absorption was the only variable associated with the likelihood of responding in positive scenarios. Participants with higher levels of private self-absorption tended to be less likely to respond in positive scenarios. Tendency to engage in social comparisons was not associated with the likelihood of responding in either negative or positive scenarios. Thus, self-reported likelihood of providing interpersonal emotion regulation when someone is experiencing negative emotions may be related to one's own experience of envy and self-absorption.

Next, I found that the model assessing the relationship between effort of responding in negative scenarios and the individual difference constructs was not significant. With that, public



self-absorption was the only variable that was close to being significantly associated with effort of one's response in negative scenarios. There were no significant associations between the individual difference constructs and anticipated effort of one's response to others in positive scenarios. Thus, being concerned with how others perceive you might be associated with believing that you would exert more effort in interpersonal emotion regulation in difficult situations, but I was unable to identify any individual differences that were significantly associated with beliefs about how much effort people would be willing to put into interpersonal emotion regulation in positive scenarios and negative scenarios.

The last hypothesis focused on the outcome of perceived urgency to respond with interpersonal emotion regulation in either negative or positive scenarios. Similar to previous results, only public self-absorption was significantly associated with perceived urgency to respond in negative scenarios. Participants with higher levels of public self-absorption also tended to perceive the need for a response to be more urgent in negative scenarios. I did not find any significant associations between perceived urgency to respond in positive scenarios and the individual difference variables.

Although I did not find significant associations for each outcome, these results still provide a basis for understanding and identifying potential predictors or mediators that will explain the differences in tendency to provide interpersonal emotion regulation for negative and positive emotions. Specifically, envy and both private and public self-absorption were associated with the likelihood of responding in negative situations and public self-absorption was also associated with the belief that the response would be urgent. Future researchers may continue to examine these variables in the context of interpersonal emotion regulation of negative emotions and use these findings to identify other relevant constructs. I did not identify any variables that were consistently related to the provision of interpersonal emotion regulation of positive

emotions. In the future, it will be important to continue to attempt to identify these variables, given the benefits of capitalization for both parties. Identifying these variables may allow further research to establish techniques that would enable individuals to respond in beneficial and effective ways during interpersonal scenarios.

### **Limitations**

To begin, this is a cross-sectional study; therefore, the results cannot be interpreted as establishing a causal relationship between the individual differences and the facets of interpersonal emotion regulation. This is due to the lack of temporal precedence established in this study. The results indicated that participants were significantly more likely to respond in negative scenarios than positive scenarios, however, I cannot determine what causes this bias. Longitudinal or experimental studies would eliminate this issue of lack of temporal precedence and would allow for stronger predictive results.

Secondly, the Social Support and Savoring Questionnaire was specifically designed to reflect the common experiences of the targeted population. We wanted responses to be authentic and natural; therefore, we tried to create scenarios that would be likely to occur in the participant's lives. Due to this structure of the vignettes, results may differ for other-aged populations because these experiences would not be as common in their present lives. Therefore, it is important to note the lack of generalizability to significantly older or younger populations.

Another potential limitation with the structure of vignettes is that participants are indicating their hypothetical responses to the scenarios. Therefore, participants could respond in a socially desirable manner. I am not able to establish that these responses would be the actual responses of the participants if they occurred in the participants' real lives. There could be many factors that influence responses if the scenarios occurred in real life; for example, time

constraints could impact the ability to respond or the amount of time and effort able to be given in a situation. Based on these limitations and the foundational information provided by the results of this study, there are several aspects of interpersonal emotion regulation to which future research could devote time and attention.

### **Future Research**

The results of this study provide a basis for researchers to examine potential predictors or mediators that influence several aspects of an individual's interpersonal emotion regulation response. The individual difference measures in this study only accounted for a small amount of the variance for each facet of interpersonal emotion regulation. There are likely other variables that are more strongly associated with an individual's interpersonal emotion regulation response. Hence, future researchers could try to identify these variables with the intent of designing experimental studies to test whether the variables lead to different interpersonal emotion regulation responses. Also, I only found one variable that was associated with ways of responding in positive scenarios. Future researchers could seek to identify variables relevant to responding in positive interpersonal scenarios.

Other researchers could implement experimental studies to determine what specific attributes of positive and negative scenarios make people more likely to or put forth more effort in responding to interpersonal situations. By implementing an experimental design, the researcher could more accurately identify any predictors or mediators for ways of responding. The results could determine any causal relationships between the outcomes and the predictors, which would strengthen and build on the results of this study.

Furthermore, future studies could look at different strategies that individuals use when engaging in interpersonal emotion regulation. In fact, past literature has focused on identifying

the maladaptive and adaptive interpersonal emotion regulation strategies by observing the consequences for regulators and receivers, such as well-being, satisfaction, and distress, of those strategies for interpersonal situations (Dixon-Gordon et al., 2015). By observing these common strategies future researchers could identify which strategies are the most beneficial or effective for common versus emotionally intense interpersonal scenarios such as the scenarios included in the vignettes of this study versus scenarios associated with psychological dysfunction or psychopathology. Further understanding of these strategies and their consequences for interpersonal scenarios can provide insight into maximizing the benefits of interpersonal emotion regulation strategies for both positive and negative interpersonal situations.

This study has provided key evidence to (1) support negativity bias related to engaging in interpersonal emotion regulation and (2) identify individual difference variables related to the anticipated provision of interpersonal emotion regulation of negative emotions. As noted in the past literature, how people respond to positive and negative scenarios can have consequences for both the regulator and the receiver (Gross, 2015; Ford & Gross, 2018; Morelli, et al., 2015; Morris et al., 2015; Schacter & Margolin, 2019). People have opportunities to engage in interpersonal emotion regulation daily; therefore, it is important to establish the mechanisms that surround these behaviors and determine what may be impacting these situations. As my results indicated, individuals prioritize their responding to negative scenarios as opposed to positive scenarios. This begs the question of whether positive scenarios should be equally emphasized in interpersonal contexts due to the benefits they may have for both the regulator and the receiver. We need experimental data to test whether attending to interpersonal emotion regulation of positive emotions has benefits that justify the effort. This study is a foundational step in moving these questions forward.

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## Tables

**Table 1***Demographic Information of the Sample*

<b>Characteristic</b>	<b>Sample (N= 107) Frequency</b>	<b>Sample (N=107) Percent</b>
<b>Gender</b>		
Male	46	43.0
Female	57	53.3
Non-binary/Third Gender	1	0.9
No Response	2	2.8
<b>Race</b>		
Asian	17	15.9
Black/African American	10	9.3
White	66	61.7
More than one race	6	5.6
Unknown/not reported	6	5.6
No Response	2	1.9
<b>Ethnicity</b>		
Hispanic/Latinx	6	5.6
Not Hispanic/Latinx	92	86.0
Unknown/not reported	7	6.5
No Response	2	1.9

**Table 2**

*Summary of the Correlations for Scores on the DES, SAS, INCOM, and the Social Support and Social Savoring Questionnaire*

Measure	1	2	3	4	5	6	7	8	9	10
1. DES	-									
2. INCOM	.371**	-								
3. Private SAS	.371**	-.084	-							
4. Public SAS	.362**	.371**	.506**	-						
5. Likelihood Positive	-.09	-.009	-.175	.023	-					
6. Likelihood Negative	-.18*	.027	-.208*	.019	.661*	-				
7. Effort Positive	-.068	-.219*	.039	-.072	.580**	.483*	-			
8. Effort Negative	-.053	-.045	-.001	.128	.416**	.683**	.671**	-		
9. Urgency Positive	.04	-.109	.124	.014	.486**	.155	.622**	.241*	-	
10. Urgency Negative	-.029	-.085	-.068	.185	.515**	.663**	.457**	.662**	.402**	-
<b>M</b>	19.23	38.62	21.03	28.42	4.18	4.71	2.82	3.66	2.71	4.25
<b>SD</b>	7.21	6.83	6.27	7.20	0.69	0.66	0.86	0.73	0.96	0.79

*Note.* For all scales, higher scores indicate higher frequency or responding in the direction of the construct being assessed. DES = Disposition Envy Scale; INCOM = Iowa-Netherlands Comparison Orientation Measure; Private SAS = Private subscale of the Self-Absorption Scale; Public SAS = Public subscale of the Self-Absorption Scale; Likelihood Positive/Negative = Likelihood score for positive scenarios/negative scenarios for the Social Support and Social Savoring Questionnaire; Effort Positive/Negative = Effort score for positive/negative scenarios for the Social Support and Social Savoring Questionnaire; Urgency Positive/Negative = Urgency score for positive/negative scenarios for the Social Support and Social Savoring Questionnaire. \*  $p < 0.05$ ; \*\*  $p < 0.01$ .

**Table 3**

*Multiple Linear Regression for Likelihood of Responding to Negative and Positive Scenarios*

<b>Model</b>	$R^2$	$\beta$	$t$	<b>Significance</b>
<b>Negative Scenarios</b>	.122			
(Constant)			11.993	< .001
Private SAS		-.286	-2.470	.015
Public SAS		.251	1.996	.049
DES		-.265	-2.524	.013
INCOM		.023	.209	.835
<b>Positive Scenarios</b>	.061			
(Constant)			10.381	< .001
Private SAS		-.275	-2.289	.024
Public SAS		.220	1.691	.094
DES		-.095	-.876	.383
INCOM		-.063	-.545	.587

*Note.* DES = Disposition Envy Scale; INCOM = Iowa-Netherlands Comparison Orientation Measure; Private SAS = Private subscale of the Self-Absorption Scale; Public SAS = Public subscale of the Self-Absorption Scale;  $p < 0.05$ .

**Table 4***Multiple Linear Regression for Perceived Effort to Respond to Negative and Positive Scenarios*

<b>Model</b>	$R^2$	$\beta$	$t$	<b>Significance</b>
<b>Negative Scenarios</b>	.04			
(Constant)			7.554	< .001
Private SAS		-.127	-1.050	.296
Public SAS		.260	1.983	.050
DES		-.082	-.752	.454
INCOM		-.102	-.869	.387
<b>Positive Scenarios</b>	.006			
(Constant)			6.452	< .001
Private SAS		.027	.222	.825
Public SAS		-.014	-.104	.918
DES		.011	.104	.918
INCOM		-.206	-1.761	.081

*Note.* DES = Disposition Envy Scale; INCOM = Iowa-Netherlands Comparison Orientation Measure; Private SAS = Private subscale of the Self-Absorption Scale; Public SAS = Public subscale of the Self-Absorption Scale;  $p < 0.05$ .

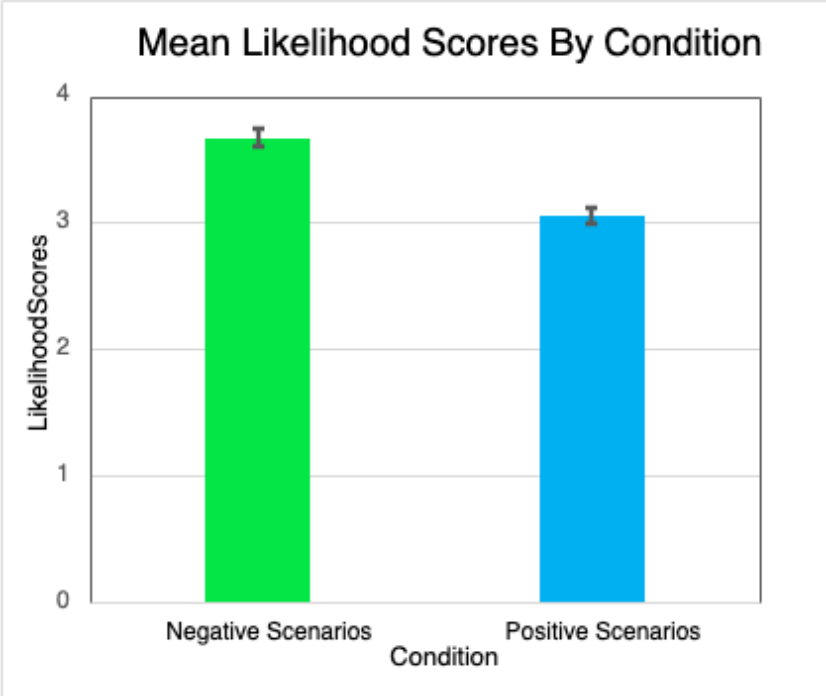
**Table 5***Multiple Linear Regression for Perceived Urgency to Respond to Negative and Positive**Scenarios*

<b>Model</b>	$R^2$	$\beta$	$t$	<b>Significance</b>
<b>Negative Scenarios</b>	.079			
(Constant)			7.550	< .001
Private SAS		-.217	-1.826	.071
Public SAS		.333	2.587	.011
DES		-.109	-1.011	.315
INCOM		.002	.021	.983
<b>Positive Scenarios</b>	.028			
(Constant)			4.254	< .001
Private SAS		.120	.986	.326
Public SAS		-.035	-.266	.791
DES		.073	.661	.510
INCOM		-.102	-.870	.386

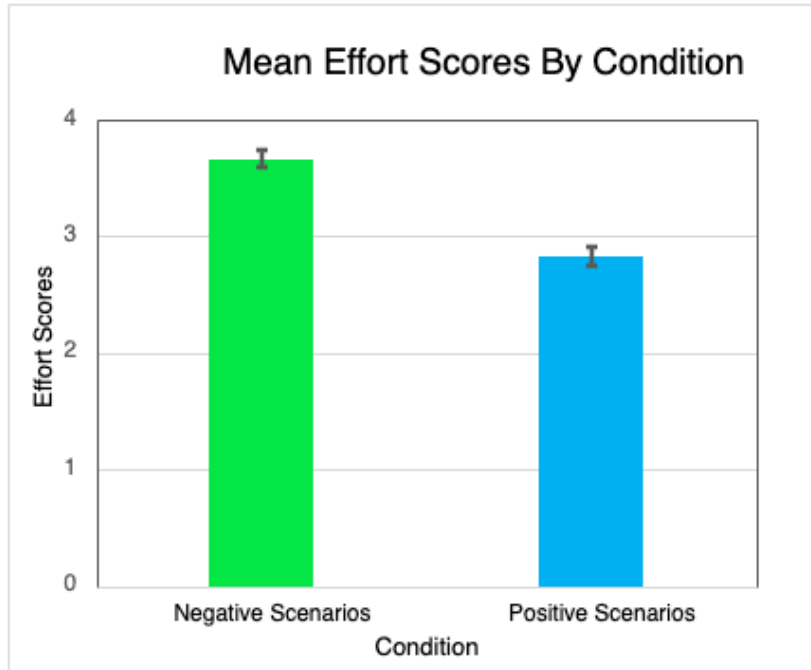
*Note.* DES = Disposition Envy Scale; INCOM = Iowa-Netherlands Comparison Orientation Measure; Private SAS = Private subscale of the Self-Absorption Scale; Public SAS = Public subscale of the Self-Absorption Scale;  $p < 0.05$ .

Figures

Figure 1 Paired Sample T-Test Comparing Mean Likelihood Scores for Negative Scenarios and Mean Likelihood Scores for Positive Scenarios

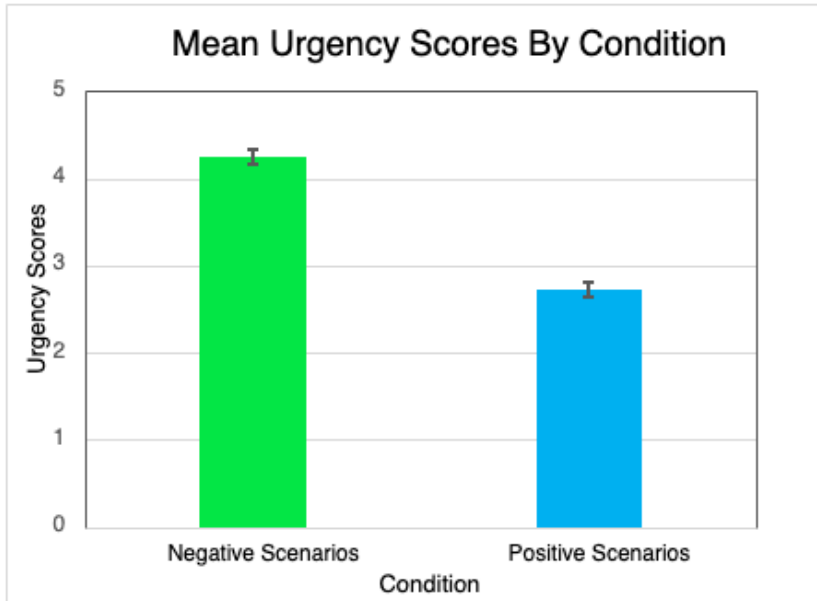


**Figure 2** Paired Sample T-Test Comparing Mean Effort Scores for Negative Scenarios and Mean Effort Scores for Positive Scenarios





**Figure 3** Paired Sample T-Test Comparing Mean Urgency Scores for Negative Scenarios and Mean Urgency Scores for Positive Scenarios



## Appendix

### Appendix A Interpersonal Vignettes in the Social Support and Social Savoring Questionnaire

<b>Vignettes</b>
<b>Negative</b>
You are walking back from class when you get a text message from a friend. You check the message and see that your friend has just been broken up with by their long-term significant other. Your friend seems very distressed over the breakup.
You are sitting in class with your lab partner when your professor stands up to make an announcement in class. The professor states that grades are posted for the final project and that grades ranged from 40% to 100%. After checking grades, your lab partner becomes very distressed seeing that it was their project that received the lowest grade.
You are at your part-time job where you work with a close friend. While working, you overhear your boss telling your friend that their cash drawer is \$200 short, and their job could be in jeopardy. Your friend appears very upset and distressed about the prospect of losing their job.
You are on a competitive sports team and are very close to your teammates. You and one of your teammates have been talking about who will get the last remaining starting position for the rest of the season. After practice one day, your coach sends out a message saying your teammate has suffered a season-ending injury and, therefore, won't be considered for the starting position any longer.
You are on your way home from school when one of your friends texts you and says that they have just been denied financial aid for the semester and now cannot pay for their classes. Your friend is very upset about the prospect of having to take out more loans and being financially unstable.
You are sitting in your room watching your favorite show when a friend from high school texts you and says that they are feeling really down and in a depressed mood. They tell you they have had a terrible week and are feeling really discouraged about the future.
You are scrolling social media and see a post that one of your classmates has not received any internship offers for the summer. Your classmate seems very disappointed about not getting any offers.
You are hanging out with your family when one of your family members says that they are experiencing a lot of problems at their job right now. They seem upset and very discouraged about work.
<b>Positive</b>
You are walking back from class when you get a text message from a friend. You check the message and see that your friend has just been asked out by their long-time crush. Your friend seems thrilled to be going on the date and you are wondering how to respond.
You are sitting in class with your lab partner when your professor stands up to make an announcement in class. The professor states that he would like to recognize your lab partner for their exceptional work on their final project and would like to nominate their work for a department award. Your lab partner appears very happy and proud to have received this recognition.

You are at your part-time job where you work with a close friend. While working, you overhear your boss telling your friend that they have been awarded employee of the month and will be receiving a bonus. Your friend appears thrilled to have been given this recognition.

You are on a competitive sports team and are very close to your teammates. You and one of your teammates have been talking about who will get the last remaining starting position for the rest of the season. After practice one day, your coach sends out a message telling everyone the coveted starting position is going to your teammate.

You are on your way home from school when one of your friends texts you and says that they just bought a winning lottery ticket and can now pay off their remaining student loan debt. Your friend is ecstatic about winning the money and being able to reduce their financial stress.

You are sitting in your room watching your favorite show when a friend from high school texts you and says that they are feeling really great and hopeful about their life right now. They tell you that they have had a great week and are feeling really happy about the future.

You are scrolling social media and see a post that one of your classmates has just gotten into their dream internship program for the summer. Your classmate seems very excited for the opportunity.

You are hanging out with your family when one of your family members says that they have really been enjoying their job and feel great about it. They seem excited talking about their work.

**Appendix B** Follow-up Questions for Each of the Vignettes in the Social Support and Social Savoring Questionnaire

Instructions for the Social Support and Social Savoring Questionnaire:

Please read the following scenarios and respond to each of the follow-up questions. As you read each scenario, try to imagine how you would feel and respond in that situation. When thinking about the scenarios, please try not to think of a specific person, but answer all questions based on how you would generally or typically respond in these situations. We ask you to answer **all** follow-up questions and rate **each** response because people may have multiple feelings or reactions to each situation or react in different ways to different situations.

a. Please indicate how hearing about this situation would make YOU feel:

1 Very slightly or not at all	2 A little	3 Moderately	4 Quite a bit	5 Extremely
Excited				
Jealous				
Proud				
Upset				
Happy				
Ashamed				
Afraid				
Dissatisfied with self				
Sad				
Interested				

b. How likely are you to reach out to this person?

1 (Not at all likely)	2 (Very unlikely)	3 (Somewhat unlikely)	4 (Somewhat likely)	5 (Very Likely)	6 (Extremely likely)

c. How quickly would you respond to the person in this situation?

0 I would not respond	1	2	3	4	5 I would respond immediately

d. How much time or effort would you be willing to put into attending to this person or their emotions in this situation?

0 I would not respond	1	2	3	4	5 Any amount of time or effort
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e. If you were to engage with the person in this situation, what would you do? \_\_\_\_\_

After hearing about this situation, how likely are you to think:

f. “Something awful or bad will happen if I’m not there for them.”

1 (Not at all likely)	2 (Very unlikely)	3 (Somewhat unlikely)	4 (Somewhat likely)	5 (Very Likely)	6 (Extremely likely)
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g. “Nothing will happen if I’m not there for them.”

1 (Not at all likely)	2 (Very unlikely)	3 (Somewhat unlikely)	4 (Somewhat likely)	5 (Very Likely)	6 (Extremely likely)
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h. “Something good will happen if I am there for them.”

1 (Not at all likely)	2 (Very unlikely)	3 (Somewhat unlikely)	4 (Somewhat likely)	5 (Very Likely)	6 (Extremely likely)
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i. “I need to be there for them right now”

1 (Not at all likely)	2 (Very unlikely)	3 (Somewhat unlikely)	4 (Somewhat likely)	5 (Very Likely)	6 (Extremely likely)
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j. “This can wait; I don’t need to be there for them right now.”

1 (Not at all likely)	2 (Very unlikely)	3 (Somewhat unlikely)	4 (Somewhat likely)	5 (Very Likely)	6 (Extremely likely)
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k. “My relationship with this person will change in some way if I don’t respond.”

0 It will change in a negative way	1	2 It will not change	3	4 It will change in a positive way
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l. “My relationship with this person will change in some way if I do respond.”

0 It will change in a negative way	1	2 It will not change	3	4 It will change in a positive way
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m. How likely is this situation to happen in your life?

1 (Not at all likely)	2 (Very unlikely)	3 (Somewhat unlikely)	4 (Somewhat likely)	5 (Very Likely)	6 (Extremely likely)
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