Reducing Narcissistic Defensiveness Through the Activation of Belonging

Jennifer Lee Smith
Loyola University Chicago

Recommended Citation
http://ecommons.luc.edu/luc_diss/546

This work is licensed under a Creative Commons Attribution-Noncommercial-No Derivative Works 3.0 License.
Copyright © 2013 Jennifer Lee Smith
LOYOLA UNIVERSITY CHICAGO

REDUCING NARCISSISTIC DEFENSIVENESS THROUGH THE ACTIVATION OF BELONGING

A DISSERTATION SUBMITTED TO THE FACULTY OF THE GRADUATE SCHOOL IN CANDIDACY FOR THE DEGREE OF DOCTOR OF PHILOSOPHY PROGRAM IN PSYCHOLOGY

BY JENNIFER L. SMITH

CHICAGO, IL

MAY 2013
ACKNOWLEDGMENTS

I would like to express my deepest gratitude to everyone who helped me throughout my dissertation. I sincerely appreciate the insightful feedback and guidance provided by my committee chair, Dr. Tracy DeHart, from the Psychology Department at Loyola University Chicago. I would also like to thank the rest of my committee members, Dr. Fred Bryant, Dr. Toby Dye, and Dr. Victor Ottati, for their valuable suggestions and support. Finally, I am grateful to the Self and Social Interaction Lab, especially Melissa Orozco, Michael Ryva, and Claire LaJeunesse, for their help with recruitment and data collection.

I would also like to thank Loyola University Chicago for providing funds to support my dissertation activities. The Schmitt Fellowship Award gave me the freedom to fully devote my time to my dissertation research. In addition, the Research Mentoring Program, Graduate School Research Funds, and Provost Fellowship Program contributed funds that were used to reimburse participants for their time.
# TABLE OF CONTENTS

ACKNOWLEDGMENTS iii

LIST OF TABLES vi

LIST OF FIGURES vii

ABSTRACT viii

CHAPTER 1: INTRODUCTION 1

CHAPTER 2: NARCISSISM 4
   Relation between Narcissism and Self-esteem 5
   Self-Regulatory Processing Models of Narcissism 7
   Narcissistic Defensiveness 9
   Narcissism and Relationship Functioning 12
   Summary 15

CHAPTER 3: SELF-ENHANCEMENT 16
   Benefits and Consequences of Self-enhancement 17
   Self-Enhancement Strategies 19
      Better-Than-Average Effect 19
      Actual-Ideal Discrepancies 21
      Unrealistic Optimism 22
      Self-serving Bias 23
      Relationship-enhancing Strategies 26
   Summary 29

CHAPTER 4: BELONGING AND ACCEPTANCE 31
   Monitoring and Maintaining Relational Value 32
   Attempts to Reduce Narcissistic Defensiveness 34
   Summary 39

CHAPTER 5: CURRENT RESEARCH 41
   Hypotheses 41
      Hypothesis 1a 41
      Hypothesis 1b 42
      Hypothesis 2 43
      Hypothesis 3 44
<table>
<thead>
<tr>
<th>Table</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Multiple Regression Results for Narcissism and Condition Predicting Self-enhancement</td>
<td>57</td>
</tr>
<tr>
<td>2</td>
<td>Multiple Regression Results for Narcissism, Need to Belong (NBS), and Condition Predicting Better-than-Average Effects</td>
<td>62</td>
</tr>
<tr>
<td>3</td>
<td>Multiple Regression Results for Narcissism, Need to Belong (NBS), and Condition Predicting Unrealistic Optimism</td>
<td>66</td>
</tr>
<tr>
<td>4</td>
<td>Multiple Regression Results for Narcissism, Need to Belong (NBS), and Condition Predicting Actual-Ideal Discrepancies</td>
<td>71</td>
</tr>
<tr>
<td>5</td>
<td>Multilevel Multiple Regression Results for Narcissism, Acceptance, and Feedback Predicting Outcomes</td>
<td>94</td>
</tr>
<tr>
<td>6</td>
<td>Multilevel Multiple Regression Results for Narcissism, Acceptance, Feedback, and Commitment Predicting Outcomes</td>
<td>99</td>
</tr>
<tr>
<td>7</td>
<td>Multilevel Multiple Regression Results for Narcissism, Acceptance, Feedback, and Relationship Quality Predicting Outcomes</td>
<td>106</td>
</tr>
</tbody>
</table>
LIST OF FIGURES

Figure 1. Narcissism and condition predicting better-than-average effects for agentic traits.  
Figure 2. Narcissism, condition, and need to belong (NBS) predicting better-than-average effect on communal trait ratings. 
Figure 3. Narcissism, condition, and need to belong (NBS) predicting unrealistic optimism for positive events. 
Figure 4. Narcissism, condition, and need to belong (NBS) predicting unrealistic optimism for negative events. 
Figure 5. Narcissism, condition, and need to belong (NBS) predicting actual-ideal discrepancies on agentic traits 
Figure 6. Narcissism, condition, and need to belong (NBS) predicting actual-ideal discrepancies on communal traits 
Figure 7. Narcissism and feedback type predicting attribution of responsibility. 
Figure 8. Narcissism and feedback type predicting perceived partner love. 
Figure 9. Narcissism, feedback type, and commitment predicting attribution of responsibility. 
Figure 10. Narcissism, feedback type, acceptance condition, and commitment predicting love. 
Figure 11. Narcissism, feedback type, acceptance condition, and relationship quality predicting attribution of responsibility. 
Figure 12. Narcissism, feedback type, acceptance condition, and relationship quality predicting perceived partner love.
ABSTRACT

People with high levels of narcissism possess extremely positive self-evaluations that may mask underlying feelings of inferiority and a need for love and acceptance. People with high levels of narcissism defend their inflated self-evaluations through chronic self-enhancement processes, which can have negative consequences for their relationship functioning. The current research examined the effects of affirming acceptance on self-enhancement in people with high and low levels of narcissism. Study 1 found that affirming acceptance reduced self-enhancement on trait ratings for people with high (vs. low) narcissism when they had a low need to belong, but the acceptance manipulation increased defensive self-enhancement in people with high (vs. low) narcissism when they had a high need to belong. Study 2 revealed that people with high narcissism self-enhance (i.e., self-serving bias) at the expense of their romantic partners, but this effect is driven by lower relationship commitment and poor recent relationship quality. In addition, people with high (vs. low) narcissism’s love for their romantic partner may be more influenced by concerns about acceptance. This is some of the first research that looks at how acceptance manipulations influence defensive self-enhancement in people with high narcissism, and these issues were examined in individual and interdependent contexts.
CHAPTER 1

INTRODUCTION

Narcissism, a personality trait characterized by grandiose, positive views of the self, has increased in U.S. college students over the last 25 years (Twenge, Konrath, Foster, Campbell, & Bushman, 2008). This is problematic because people with high levels of narcissism maintain their inflated self-views through rigorous self-enhancement and defensive responses to criticism (e.g., Baumeister & Vohs, 2001; Sedikides & Gregg, 2001). For instance, people with higher levels of narcissism respond aggressively toward evaluators and others sources of ego-threats (e.g., Bushman & Baumeister, 1998).

Consequently, this extreme defensiveness in response to negative feedback may lead to missed opportunities for self-improvement and personal growth. In addition, compared to people with lower levels of narcissism, people who report higher levels of narcissism self-enhance in less socially acceptable ways (e.g., boasting, derogating evaluators), and they tend to self-enhance even when it is at the expense of their close relationships (e.g., Campbell, Reeder, Sedikides, & Elliot, 2000a). As a result, people with higher levels of narcissism are viewed more negatively by others over time (e.g., Back, Schmukle, & Egloff, 2010; Paulhus, 1998), and these struggles with relationship partners may ultimately be detrimental for their mental and physical health (e.g., Burman & Margolin, 1992; House, Landis, Umberson, 1988). Negative experiences in relationships may lead
to increased feelings of rejection, which may, in turn, continue to foster narcissistic self-enhancement tendencies.

In general, people (regardless of narcissism level) are motivated to have positive views of the self (e.g., Alicke & Sedikides, 2009; Sedikides & Gregg, 2008; Taylor & Brown, 1988), and they engage in many different self-enhancement strategies to boost their self-evaluations as well as to present themselves in a more positive light during interactions with others (e.g., Hepper, Gramzow, & Sedikides, 2010). For example, people tend to be overly optimistic about how future events will unfold for them (i.e., unrealistic optimism; Weinstein, 1980) and they also tend to report that they possess more positive traits than most people (i.e., better-than-average effect; Alicke, 1985). In addition, people are more likely to take greater responsibility for successes, but to attribute failures to external factors or other people (i.e., self-serving bias; Sedikides, Campbell, Reeder, & Elliot, 1998). Close relationships are also a source of self-enhancement opportunities. People include others in their sense of self, and self-views are often elevated by the successes of close others (e.g., Aron, Aron, Tudor, & Nelson, 1991; Gardner, Gabriel, & Hochschild, 2002). As a result, people tend to engage in relationship-enhancing behaviors, which serve to not only benefit relationship functioning, but ultimately, to indirectly enhance the self (e.g., Murray, Holmes, & Griffin, 1996). The way that people self-enhance can vary based on various individual-difference variables (e.g., narcissism, self-esteem) and situational factors (e.g., presence of audience, evaluative situations). Compared to people with lower levels of narcissism,
people with higher levels of narcissism are more maladaptive in both the manner and the extent to which they self-enhance.

The current research seeks to evaluate the effectiveness of acceptance affirmations on reducing defensive self-enhancement in people who have higher levels of narcissism. Belonging is a fundamental human motivation (Baumeister & Leary, 1995). From an evolutionary perspective, belonging to a larger social group was critical for survival, because of increased resources, protection, and reproductive opportunities. Furthermore, close relationships are important sources of social support, and higher levels of belonging are associated with positive mental and physical health outcomes (e.g., DeLongis, Folkman, & Lazarus, 1988). People monitor their “relational value,” and they want to be seen as the type of person that others want to have as a relationship partner (Leary, 2005; Leary, Tambor, Terdal, & Downs, 1995). Relationships are important to the maintenance of self-views of people with high levels of narcissism. Maladaptive self-enhancement responses that are characteristic of high narcissism, such as derogating their relationship partners, may stem from an underlying need to belong and feel accepted by others. Therefore, increasing feelings of belonging and acceptance may reduce defensive responses in people with high levels of narcissism.
Narcissism is a personality trait associated with overly positive, grandiose self-beliefs. One of the primary characteristics of narcissism is a chronic tendency to engage in overt self-enhancement. In fact, some researchers have described high levels of narcissism as an ego addiction (Baumeister & Vohs, 2001). Narcissism is also characterized by a sense of entitlement and a willingness to exploit others for personal gain (Buss & Chiodo, 1991). For people with high narcissism, this tendency to exploit others is reinforced by their egocentric orientation (e.g., Buss & Chiodo, 1991) and decreased levels of empathy (e.g., Watson, Grisham, Trotter, & Biderman, 1984). People with high narcissism also tend to believe that they are more special and unique than others (Emmons, 1984). Furthermore, narcissism is related to a strong agentic orientation and unrelated to a communal orientation (Bradlee & Emmons, 1992; Campbell, Rudich, & Sedikides, 2002b).

In addition, there tends to be a small, negative correlation between narcissism and neuroticism (Bradlee & Emmons, 1992; Kubarych, Deary, & Austin, 2004; Rhodewalt & Morf, 1995). However, other evidence suggests that the relation between narcissism and neuroticism may differ for different narcissism subtypes. More maladaptive forms of narcissism (i.e., vulnerable narcissism, covert narcissism) are positively related to neuroticism, whereas more adaptive narcissism (i.e., grandiose narcissism, overt
narcissism) appears to be unrelated to neuroticism (e.g., Hendin & Cheek, 1997; Miller, Hoffman, Gaughan, Gentile, Maples, & Campbell, 2011). Other evidence suggests that people with high (vs. low) narcissism display less emotional stability after threat, such as failure feedback (Rhodewalt & Morf, 1998).

The current research focuses on narcissism as a personality trait at a sub-clinical level, not extreme, clinical levels of narcissism which are associated with narcissistic personality disorder. This section will review research on the association between narcissism and conscious and unconscious self-evaluations, the self-regulatory processing model of narcissism, the defensive responses that occur when people who are high on narcissism encounter threats or obstacles to self-enhancement, and the relation between narcissism and relationship functioning.

**Relation between Narcissism and Self-esteem**

Based on initial conceptualizations of narcissism from clinical psychology (e.g., Kernberg, 1975), the mask model of narcissism proposes that the excessive self-enhancement displayed by people with high narcissism masks underlying feelings of inferiority (e.g., Bosson, Lakey, Campbell, Zeigler-Hill, Jordan, & Kernis, 2008). Psychodynamic theories suggest that narcissism is related to maladaptive dynamics in the parent-child relationship, but existing research provides mixed evidence about the social origins of narcissism (e.g., Thomaes, Bushman, Orobio de Castro, & Stegge, 2009b). For instance, previous research has found that sub-clinical narcissism is positively correlated with perceived inconsistencies in parental love (Trumpeter, Watson, O’Leary, & Weathington, 2008). However, other researchers have found in a university sample that
permissive parenting styles and parental warmth are positively associated with narcissism, whereas maladaptive narcissism is related to parental psychological control tactics, such as inducing feelings of guilt (Horton, Bleau, & Drwecki, 2006).

Empirical research has found mixed support for the mask model of narcissism (for a review, see Bosson et al., 2008). At a conscious level, researchers have consistently found a positive correlation between narcissism and explicit self-esteem (e.g., Bosson et al., 2008; Campbell et al., 2002b; Emmons, 1984; Raskin, Novacek, & Hogan, 1991). However, narcissism is not simply extremely high self-esteem. For example, Horvath and Morf (2010) identified differences in self-enhancement motives for people with high levels of narcissism and people with high levels of self-esteem. Compared to people with high self-esteem, people with high levels of narcissism self-enhance in less socially acceptable ways (Horvath & Morf, 2010). People with high levels of narcissism were more motivated to display superiority, and they self-enhanced through high self-ratings on grandiosity. In contrast, people with high self-esteem were more motivated to self-enhance through socially acceptable means, such as decreasing self-ratings of worthlessness rather than increasing their ratings on positive traits.

Consistent with beliefs that narcissism masks underlying feelings of inferiority, some researchers have found a relation between insecure high self-esteem and narcissism (e.g., Jordan, Spencer, Zanna, Hoshino-Browne, & Correll, 2003; Zeigler-Hill, 2006). Insecure high self-esteem refers to a combination of high explicit self-esteem and low implicit self-esteem. However, other researchers have failed to find this effect (Bosson et al., 2008; Gregg & Sedikides, 2010). Gregg and Sedikides (2010) proposed that
narcissism is positively correlated with explicit self-esteem and negatively correlated with implicit self-esteem, but implicit and explicit self-esteem do not interact to predict narcissism. Furthermore, implicit (e.g., Campbell, Bosson, Goheen, Lakey, & Kernis, 2007) and explicit self-evaluations (e.g., Campbell, Brunell, & Finkel, 2006; Campbell et al., 2002b) of people with high levels of narcissism vary depending on whether they are reporting on agentic (e.g., intelligence, attractiveness) or communal (e.g., warmth, caring) traits. Their self-evaluations tend to be more favorable on agentic versus communal traits. Based on these findings, Bosson et al. (2008) posit that people with high levels of narcissism may “possess deep-seated, negative (or relatively negative) beliefs about their kindness, warmth, and ability to form loving connections with others” (p. 1427).

**Self-Regulatory Processing Models of Narcissism**

The dynamic self-regulatory processing model proposes that the self-regulatory processes of people with high levels of narcissism are strongly driven by the goals of achieving desired self-views and shaping how others perceive them (Morf, Horvath, & Torchetti, 2011a; Morf, Torchetti, & Schürch, 2011b; Morf & Rhodewalt, 2001). State self-esteem functions as an indicator of how close one is to achieving these desired self-goals, which in turn triggers self-regulatory processes. The dynamic self-regulatory processing model is comprised of three interconnected units that mutually influence each other: mental construal system, self-regulatory processes, and the social world.

The mental construal system refers to cognitive, affective, and motivational representations of the self, others, the social world, and it is comprised of self-construals and other-construals (Morf et al., 2011a). Self-construals include mental representations
and evaluations of one’s actual and ideal self, such as the highly positive evaluations of intelligence and attractiveness associated with high levels of narcissism (e.g., Gabriel, Critelli, & Ee, 1994), whereas other-construals include one’s evaluations of others and beliefs about how others perceive them (e.g., perceptions of superiority over others). According to the model, these representations are organized in a network and the activation of one representation spreads to related representations.

The second component of the model, self-regulatory processes, includes all of the conscious and unconscious processes and strategies used to maintain and change one’s views of the self (Morf et al., 2011a). These self-regulatory processes may be intrapersonal (e.g., selective attention, biased recall) or interpersonal (e.g., presenting oneself in a favorable manner, displaying a game-playing love-style). In addition, these self-regulatory processes can be activated by internal (e.g., feelings of worthlessness) or external (e.g., presence of an audience) factors that have implications for achieving one’s self-goals.

Finally, the social world is the third component of the dynamic self-regulatory processing model (Morf et al., 2011a). The social world provides information about how close one is to achieving self-goals (i.e., actual-ideal self discrepancies) and triggers self-regulation processes. In addition, the model proposes that self-systems interact with others’ self-systems in the social world. There is a stronger bond and greater mutual influence between self-systems of people who are close and important to one another.

Building upon Morf’s dynamic self-regulatory processing model, Campbell’s extended agency model of narcissism highlights four components that work together to
generate narcissistic esteem (Campbell & Foster, 2007): (1) narcissistic personality traits (e.g., agency, grandiose self-views), (2) interpersonal skills (e.g., confidence, charisma), (3) intrapsychic self-regulation strategies (e.g., self-serving bias, exaggerated perception of abilities), (4) and interpersonal self-regulation strategies (e.g., game-playing love style, better-than-average effect). Narcissistic esteem refers to positive feelings that are more strongly associated with dominance and pride, rather than acceptance and other communal-types of esteem. Campbell and colleagues propose that some factors may reinforce or reduce the skills and strategies associated with narcissism. For instance, obtaining fame may exacerbate the use of self-promotion strategies, whereas the presence of close family members may reduce the tendency to exploit others. The researchers theorize that it may be possible to change narcissistic self-regulatory processes by creating a “communal shift,” by increasing a person’s communal orientation and increasing communal traits, such as warmth and compassion (e.g., Campbell et al., 2006; Campbell & Foster, 2007).

**Narcissistic Defensiveness**

People with high levels of narcissism appear to be chronically motivated to enhance the self, and they actively seek opportunities to self-enhance and to present themselves in a favorable light to others (Morf et al., 2011a). For instance, Wallace and Baumeister (2002) found that people with high levels of narcissism are motivated to perform better on tasks with high self-enhancement opportunities (e.g., challenging and diagnostic tasks, presence of others, identifiable individual effort), whereas the performance of people with low narcissism does not depend on opportunities for self-
enhancement. However, this increased motivation to perform well may not boost actual performance levels. For example, Farwell and Wohlwend-Lloyd (1998) found that high narcissism is positively correlated with students’ predicted final grades, but narcissism was unrelated to their actual final grades.

People with high levels of narcissism tend to respond very defensively when their positive self-evaluations are threatened. Given their inflated self-views, people with high levels of narcissism are frequently confronted with information that has the potential to threaten self-views and they must continually bolster self-evaluations to defend against self-threats. Accordingly, people with high levels of narcissism are highly reactive to criticism compared to people with lower levels of narcissism. For example, people who are high (vs. low) on narcissism are significantly more likely to derogate their evaluator and the evaluation technique after receiving negative feedback (e.g., Horton & Sedikides, 2009; Kernis & Sun, 1994). Horton and Sedikides (2009) found that people with high (vs. low) levels of narcissism used comparative self-enhancement strategies (e.g., derogating an evaluator) more rigidly. Specifically, people with high levels of narcissism rated their evaluators more negatively after receiving negative feedback regardless of the evaluator’s status. However, people with lower levels of narcissism only derogated high (vs. low) status evaluators. Similarly, Kernis and Sun (1994) found that people with high (vs. low) levels of narcissism rated evaluators as less competent and the evaluation technique as less diagnostic after receiving negative feedback about their social skills. In contrast, after positive feedback, people with high (vs. low) levels of narcissism rated their evaluator as more competent and the evaluation technique as more diagnostic.
Furthermore, when confronted with information that threatens their self-view, people with high (vs. low) levels of narcissism tend to respond more aggressively toward their evaluators (e.g., Bushman & Baumeister, 1998; Stucke & Sporer, 2002). After failure, people with high levels of narcissism and low self-concept clarity (i.e., a poorly defined, unstable, and internally inconsistent self-concept) reported the most anger and verbal aggression about the experiment, whereas people with low levels of narcissism and high self-concept clarity reported the least (Stucke & Sporer, 2002). Bushman and Baumeister (1998) found a relation between narcissism and direct aggression toward an evaluator after negative feedback, but not after positive feedback. However, narcissism was unrelated to displaced aggression toward a non-evaluative other. Bushman and Baumeister (1998) also found that perceived threat mediated the relation between narcissism and aggression. Additional research has shown that narcissistic aggression following an ego-threat is attenuated when the evaluator and person with high narcissism are similar, such as a shared birthday or fingerprint type (Konrath, Bushman, & Campbell, 2006).

It is unclear whether people with high levels of narcissism are fully aware of the extent to which they self-enhance. Gosling, John, Craik, and Robins (1998) compared self-report and video-based observer coding of act frequencies during a group decision-making task. Compared to people with lower levels of narcissism, people with higher levels of narcissism tend to over report the frequency of desirable behaviors, such as taking control of meetings and making persuasive arguments (Gosling et al., 1998). However, recent research suggests that people with high levels of narcissism are aware
that they see themselves more positively than others see them (Carlson, Vazire, & Oltmanns, 2011). Specifically, compared to self-ratings, their meta-perceptions (i.e., reflected appraisals or perceptions of how others perceive them) are lower on positive traits. People with high levels of narcissism also appear to recognize that they possess narcissistic traits. For example, narcissism was positively associated with self-perceptions and meta-perceptions of arrogance and the tendency to exaggerate abilities.

In addition, recent research found that women with high narcissism reported lower self-esteem in a bogus pipeline condition (in which they believed they were connected to a lie-detection device) compared to a control condition (Myers & Zeigler-Hill, 2012). This suggests that the high self-esteem scores typically reported by people with high narcissism may be partly attributable to self-presentation concerns rather than genuine reports of their self-esteem.

**Narcissism and Relationship Functioning**

People with high levels of narcissism use interpersonal relationships to regulate their self-evaluations in several ways. First, romantic relationships provide an opportunity for people with high levels of narcissism to self-enhance indirectly by “basking in the reflected glory” of their romantic partners (Cialdini, Borden, Thorne, Walker, Freeman, & Sloan, 1976). For example, Campbell (1999) has found that people with high levels of narcissism tend to prefer high status romantic partners who admire them. People with high levels of narcissism generally do not prefer dependent partners or people who seek emotional intimacy (Campbell, Foster, & Finkel, 2002a). People with high levels of narcissism reported a greater preference for perfect partners rather than
caring partners. When presented with the option, people with high levels of narcissism reported greater romantic attraction for perfect-noncaring partners than for caring-nonperfect partners (Campbell, 1999).

Second, narcissism is associated with some short-term relationship benefits. For instance, people with high levels of narcissism make great first impressions and they tend to be perceived as popular (Back et al., 2010). This makes it easy for people with high levels of narcissism to initiate relationships. In addition, people with high levels of narcissism may be more resistant to doubts about their romantic partner (Foster & Campbell, 2005). People with high (vs. low) levels of narcissism found it more difficult to generate reasons that their romantic partner would be less committed to their relationship.

However, recent research suggests that this reported resistance to doubts may be more of a defensive response rather than an accurate report of the experiences in relationships of people with high narcissism (Longua Peterson & DeHart, 2013). After a relationship-threat manipulation, people with high (vs. low) narcissism reported performing fewer defensive behaviors during conflict interactions with their romantic partners; however, there were no significant differences in reports of defensive behaviors associated with level of narcissism in a non-threat control condition (Longua Peterson & DeHart, 2013). In a second study, romantic partners were video-recorded as they discussed a current source of conflict within the relationship. Video-based observer ratings indicated that people with high levels of narcissism actually behaved more negatively than people with low levels of narcissism during the conflict (Longua Peterson
& DeHart, 2013). In addition, people with high levels of narcissism reported that they were less committed and that their romantic partners were more committed to the relationship. In other words, when faced with relationship threats, people with high levels of narcissism displayed self-enhancing responses instead of relationship-enhancing responses.

Overtime, however, narcissism is generally associated with negative relationship functioning. In a longitudinal study, Paulhus (1998) found that people with high levels of narcissism were liked less by their interaction partners over time (also see Carlson et al., 2011). When asked to describe their past romantic partners, people who described their romantic partners as narcissistic (vs. non-narcissistic) were significantly more likely to say that their partner was overcontrolling, manipulative, and unfaithful (Campbell et al., 2002a). Participants were also more likely to report that their narcissistic partner lied, played games, and flirted with others. Participants indicated that their view of their narcissistic partner changed more over time and it took them longer to know their personality (Campbell et al., 2002a).

Overall, people with high levels of narcissism seek out romantic partners who can enhance their self-evaluations, but they also seek to dominate their romantic partners, derogating them in order to enhance the self. People with high (vs. low) levels of narcissism tend to endorse a game-playing love style, which is characterized by lower commitment, deception, and seeking alternative relationship partners (Campbell et al., 2002a). This game-playing love style increases the alternatives that people with high levels of narcissism have to their current relationship, which in turn, increases their
power and autonomy (Campbell & Foster, 2002). Compared to those lower on narcissism, people with high levels of narcissism also report lower levels of commitment to their romantic partners (Campbell & Foster, 2002; Campbell et al., 2002a).

Summary

Narcissism is a personality trait that is characterized by grandiose, but fragile self-evaluations and chronic self-enhancement. Narcissism is related to a strong agentic orientation, and self-enhancement tends to occur most in agentic rather than communal domains. In addition, people with high (vs. low) levels of narcissism self-enhance to a greater extent and respond to self-threats in more maladaptive and less socially acceptable ways. In response to threat, people with high levels of narcissism tend to defensively self-enhance, even when it is at the expense of relationship partners. This narcissistic defensiveness is problematic because it can have a negative impact on personal growth and relationship functioning. The next section focuses on ways that people enhance and maintain positive views of the self. In addition, the next section reviews research on the association between narcissism and specific self-enhancement and relationship-enhancement responses.
CHAPTER 3
SELF-ENHANCEMENT

People are motivated to construct and maintain positive views of the self (e.g., Alicke & Sedikides, 2009; Hepper et al., 2010; Sedikides & Gregg, 2008; Taylor & Brown, 1988). In order to maintain these positive self-evaluations, people implicitly and explicitly defend against self-threats. A self-threat is information that casts doubt on one’s positive self-evaluations or increases negative self-evaluations, including negative feedback about intelligence or academic performance, indicators of undesirable personality traits or poor social skills, mortality cues, and interpersonal rejection (e.g., Alicke & Sedikides, 2009; Leary, Terry, Allen, & Tate, 2009; vanDellan, Campbell, Hoyle, & Bradfield, 2011). A common connection amongst the various types of self-threats is that they all can increase the perceived discrepancy between a person’s desired self and actual self.

People may respond to threats to the self by engaging in self-enhancement or self-protection responses (e.g., Hepper et al., 2010). Self-enhancement responses refer to thoughts, feelings, and behaviors that are intended to increase the positive views of oneself and to emphasize strengths (e.g., boasting to others about previous accomplishments), whereas self-protective behaviors are responses that are intended to decrease the negative self-perceptions and to minimize weaknesses (e.g., ignoring negative feedback) (e.g., Alicke & Sedikides, 2009; Hepper et al., 2010). People have
many different ways that they defend the self, and they use self-enhancement and self-protection responses strategically. Sedikides’s argues that people tend to strategically self-enhance by self-enhancing on the most relevant or important dimensions rather than self-enhancing at all opportunities (e.g., Sedikides, Gaertner, & Vevea, 2005). For example, people may forgo self-enhancing or self-protecting responses after negative feedback if they believe that there may be a long-term benefit, such as self-improvement or strengthening a relationship.

**Benefits and Consequences of Self-enhancement**

Researchers have debated whether self-enhancement processes lead to positive or negative outcomes (e.g., Colvin, Block, & Funder, 1995; Robins & Beer, 2001; Taylor & Brown, 1988). Several benefits and consequences of self-enhancement processes have been identified. Most obviously, a benefit of self-enhancement is that it increases people’s positive self-evaluations. Previous research also suggests that self-enhancement tendencies are related to better mental and physical well-being (e.g., Taylor & Brown, 1988; Taylor, Lerner, Sherman, Sage, & McDowell, 2003a; Taylor, Lerner, Sherman, Sage, & McDowell, 2003b). Taylor and colleagues found a positive correlation between self-enhancement and mental health as well as between self-enhancement and relationships with others (Taylor et al., 2003a). After completing stressful mental tasks, people who scored highly on a self-enhancement task had lower blood pressure and lower heartbeats (Taylor et al., 2003b). High self-enhancers also had lower baseline cortisol ratings compared to low self-enhancers, but this was unrelated to the stress task.
Psychological resources (e.g., self-esteem, optimism) mediated the relation between self-enhancement and baseline cortisol ratings.

On the other hand, chronic self-enhancing behaviors may negatively impact the quality of interpersonal relationships. Chronic self-enhancers are often perceived by others as boastful and competitive. For instance, Colvin et al. (1995) found that overly positive self-evaluations were related to unfavorable personality traits and poorer social interactions. Friends and trained examiners assigned significantly more negative personality traits (e.g., decreased ego resiliency) to high self-enhancers. During a debate on capital punishment, high self-enhancers displayed poorer social skills compared to low self-enhancers. Specifically, high self-enhancing men tended to brag, interrupt, speak quickly, and act in a hostile manner. High self-enhancing women tended to seek acceptance, act irritable, and display awkward interpersonal skills. Colvin et al. (1995) proposed that self-enhancement in response to threat may be beneficial, but prolonged tendencies to self-enhance may be detrimental.

Another potential consequence of some self-enhancement strategies is that people may miss out on opportunities for self-improvement. For example, after a negative test performance, people with low (vs. high) self-esteem reported less motivation (Kernis, Brockner, & Frankel, 1989). In contrast, people with low self-esteem reported more motivation than people with high self-esteem after they learned that they performed well on the test. These results suggest that participants with low self-esteem were defending the self from future failures by decreasing their motivation (and presumably effort) to perform well on future tests. In addition, defensive processing of information can limit
the types of information that people attend to and remember. For example, Frey and Stahlberg (1986) found that people who received negative feedback on an intelligence test preferred to read articles that discredited the intelligence test and they also rated the intelligence test as less important. When people avoid threatening messages, they may miss important information that can be used to improve their health, academic performance, or other aspect of their life.

**Self-Enhancement Strategies**

There are many different ways that people can maintain and increase the positivity of their self-evaluations. Four types of self-enhancement strategies will be discussed: 1) better-than-average effect, 2) reducing actual-ideal discrepancies, 3) unrealistic optimism, and 4) self-serving bias. Each self-enhancement strategy will be described, followed by a review of research on the relation between narcissism and the self-enhancement strategy.

**Better-Than-Average Effect**

The better-than-average effect is the tendency for people to rate themselves more positively than the average person (or most people) on evaluations of their own abilities and characteristics (e.g., Alicke, 1985; Alicke & Govorun, 2005; Alicke, Klotz, Breitenbecher, Yurak, & Vredenberg, 1995). The better-than-average effect is viewed as a self-enhancement strategy, because researchers suggest that the effect is at least partially driven by a motivation to maintain a positive view of the self (for a review, see Alicke & Govorun, 2005). The better-than-average effect is larger when participants are asked to compare themselves to a general other, such as an average person, rather than a
specific individual (Alicke et al., 1995). Furthermore, better-than-average effects tend to be greater for judgments on abstract or subjective dimensions, such as social abilities or morality, compared to more objective dimensions, such as intelligence (Alicke & Govorun, 2005).

**Relation between narcissism and better-than-average effect.** Campbell et al. (2002b) demonstrated that people with high levels of narcissism display the better-than-average effect on self-report trait ratings. Specifically, narcissism was positively related to better-than-average effects on positive traits, but the better-than-average effect was not found for negative traits. In addition, the better-than-average effect was found for people with high levels of narcissism on ratings of agentic traits (e.g., intelligence, extraversion), but not on ratings of communal traits (e.g., agreeableness, conscientiousness; Campbell et al., 2002b). Unlike people who are lower on narcissism, people with higher levels of narcissism even display the better-than-average effect when the comparison group is their romantic partners (Campbell et al., 2002b). People with high levels of narcissism reported that they were better than their romantic partners on positive traits, which is evidence that people with high levels of narcissism self-enhance at the expense of their romantic partners. In addition, the better-than-average effect did not extend to their evaluations of current romantic partners. That is, people with high levels of narcissism did not rate their romantic partner more positively on traits compared to the average person.
Actual-Ideal Discrepancies

Self-discrepancy theory (Higgins, 1987) proposes that psychological discomfort occurs when there are discrepancies in one’s beliefs about the self. Specifically, discrepancies between the actual self and ideal self lead to feelings of dejection and disappointment. Actual-ideal self discrepancies reflect the absence of positive outcomes rather than the presence of negative outcomes (Higgins, 1987). These discrepancies between actual and ideal selves may threaten people’s positive self-evaluations because it highlights aspects of the self that need improvement. People may defend against this ego threat by adjusting their views of their actual self or ideal self in order to reduce the actual-ideal discrepancy.

Relation between narcissism and actual-ideal discrepancies. Previous research suggests that narcissism is associated with smaller actual-ideal discrepancies (e.g., Bosson, Brown, Zeigler-Hill, & Swann, 2003; Emmons, 1984). Emmons (1984) reported a strong negative correlation between narcissism and discrepancies between actual and ideal self-esteem ratings. In addition, Bosson et al. (2003, Study 2) found that reported actual-ideal discrepancies in self-concept ratings were smaller for people with insecure high self-esteem (i.e., high explicit and low implicit self-esteem) compared to people with secure high self-esteem, suggesting that participants with insecure high self-esteem enhanced their reported actual self-concepts. As discussed previously, some researchers have found a positive relation between insecure high self-esteem and narcissism (e.g., Jordan et al., 2003).
Unrealistic Optimism

Unrealistic optimism is a bias in judgment where people tend to overestimate the likelihood that positive events will happen to them and underestimate the likelihood that negative events will happen to them (Taylor & Brown, 1988; Weinstein, 1980). Unrealistic optimism is influenced by various cognitive (e.g., personal experiences are more salient and easier to recall) and motivational (e.g., ego defense) factors. People tend to display more unrealistic optimism when perceived control over the event is high and when they are personally invested in the outcome (Weinstein, 1980). People with high neuroticism reported greater unrealistic optimism for positive and negative life events (Darvill & Johnson, 1991). In addition, Weinstein (1980) found that the desirability of the event was positively related to unrealistic optimism for positive events (but not for negative events). The unrealistic optimism effects are stronger when the comparison target is an abstract other (e.g., average college student) rather than a specific person (Helweg-Larsen & Shepperd, 2001).

Relation between narcissism and unrealistic optimism. The results of previous research suggest that people with high (vs. low) levels of narcissism are likely to display greater unrealistic optimism (e.g., Bosson et al., 2003; Farwell & Wohlwend-Lloyd, 1998). In a series of studies, Farwell and Wohlwend-Lloyd (1998) found that narcissism was positively correlated with predicted final grades in a college course, but there was no relation between narcissism and actual final grades (Study 1). People with high levels of narcissism also reported greater estimates of their current grades and greater estimates of the percentage of people who had comparatively lower grades (Farwell & Wohlwend-
Lloyd, 1998, Study 2). In addition, Bosson et al. (2003, Study 1) found that people with insecure high self-esteem (a correlate of narcissism) reported higher levels of unrealistic optimism compared to people with secure high self-esteem.

**Self-serving Bias**

Self-serving bias is the tendency to take personal credit for successes and to attribute failures to external factors. The self-serving bias is a motivated process that enhances and maintains self-views (e.g., Zuckerman, 1979). Campbell and Sedikides (1999) conducted a meta-analysis examining factors that influence the magnitude of self-serving biases. Overall, they found that self-serving biases are greater when potential threats to the self are present. For example, self-serving biases are greater for self-report ratings (vs. observer ratings), individuals with high (vs. low) self-esteem, men (vs. women), tasks of high (vs. low) importance, expectations for success (vs. failure), and challenging (vs. unchallenging) tasks.

Most importantly for the current research, the self-serving bias is also moderated by closeness (e.g., Campbell, Sedikides, Reeder, & Elliot, 2000b; Sedikides et al., 1998). Sedikides and colleagues (1998) manipulated relationship closeness by having participants complete a closeness-induction task (i.e., self-disclosing personal information for approximately 10 minutes) with a new acquaintance they just met during the study. Then, participants were randomly assigned to work on an interdependent-outcomes creativity task with either the closeness-induction partner or with a stranger. Participants completed the task individually, and they were told that the outcome of the task was dependent upon their combined performance. After completing the creativity
task, participants received positive or negative performance feedback. Finally, participants were asked to rate which member of the dyad was most responsible for the task outcome. Self-serving bias was evident for participants in the stranger condition, but the self-serving bias was attenuated in the closeness-induction condition (Sedikides et al., 1998). Participants in closeness-induction condition shared the responsibility for successes and failures with their partner. In a follow-up study, Sedikides et al. (1998) found that the self-serving bias was mediated by impressions of their task partners. People who completed the closeness-induction task formed more positive impressions of their partner. In addition, Campbell et al. (2000b) replicated these findings within the context of friendships. Friends who worked on a task together attributed equal amounts of responsibility and failures to each other, whereas strangers who worked together displayed a self-serving bias.

**Relation between narcissism and self-serving bias.** People high on narcissism are also more likely to display self-serving biases compared to people low on narcissism. In other words, people with high levels of narcissism tended to take more responsibility for successes and less responsibility for failures compared to people lower on narcissism, and these effects were found on independent and dyadic tasks (Campbell et al., 2000a; Farwell & Wohlwend-Lloyd, 1998; Stucke, 2003).

Stucke (2003) examined the relation between narcissism and performance attributions on an independent task. Participants completed an intelligence test, followed by bogus success or failure feedback (Stucke, 2003). People with high (vs. low) levels of narcissism were more likely to attribute success to their own ability (internal
attributions), although they tended to attribute failure to task difficulty (external attributions). Furthermore, these attributions mediated the relation between narcissism and negative emotions (i.e., anger and depression) following negative feedback. After failure, people with high levels of narcissism tended to make external attributions and experience anger; in contrast, people with low levels of narcissism were more likely to make internal attributions and experience depression after failure feedback.

Farwell and Wohlwend-Lloyd (1998) found that narcissism was positively related to expectations for personal performance and negatively related to expectations for task partner’s performance on an interdependent-outcome creativity task. After receiving bogus feedback on the task, narcissism predicted attributions of success to individual ability and effort; however, narcissism was unrelated to external attributions (e.g., luck, difficulty level) or attributions to estimates of partner’s ability and effort. This suggests that people with high levels of narcissism self-enhanced by taking credit for success, but they did not self-enhance by derogating their partner.

Furthermore, researchers have also examined whether closeness attenuates the self-serving bias in narcissistic samples (Campbell et al., 2000a). The participants were all new acquaintances, and closeness was manipulated using a closeness-induction task. Participants completed an interdependent-outcomes creativity task with either a closeness-induced partner or a stranger. After the task, participants received success or failure feedback, and then they were asked to indicate which member of the dyad was most responsible for the task outcome. People with high levels of narcissism displayed a self-serving bias, taking more personal responsibility for successful outcomes and less
responsibility for failures. In contrast, people with lower levels of narcissism displayed an other-serving bias by giving their partner more credit for successes and taking more personal responsibility for failures. These effects were not moderated by closeness; however, this study manipulated closeness using a 10-minute closeness-induction task. Although the closeness-induction task was effective at increasing intimacy between new acquaintances, it is not the same as the closeness that is experienced by romantic partners. During a closeness-induction manipulation, people share information about themselves with a new acquaintance. Voluntary self-disclosure is an important early step in creating acceptance and forming a relationship with someone else (Miller, 2002); however, it is likely that people would include their romantic partners in their sense of self more than they would a new acquaintance after a closeness-induction task (Aron et al., 1991). To date, the researcher is unaware of any studies that have examined the relation between narcissism and self-serving bias in romantic couples.

**Relationship-enhancing Strategies**

Direct self-enhancement strategies, such as the better-than-average effect, are not the only way that people can self-enhance. People can also self-enhance indirectly by enhancing their relationships and relationship partners. Cognitive representations of the self and close relationship partners tend to overlap, and people include close others in their sense of self (e.g., Anderson & Chen, 2002; Aron et al., 1991). For example, people have a tendency to idealize their romantic partners (Murray et al., 1996). In fact, people rate their romantic partners more positively on partner-trait ratings than their romantic partners rate themselves on self-report ratings. These positive illusions about the
romantic partner are an extension of their own self-enhancing tendencies, and the relationship-enhancing illusions are associated with greater relationship satisfaction (Murray, Griffin, Derrick, Harris, Aloni, & Leder, 2011; Murray et al., 1996).

Previous research has also found that the self-serving bias extends to marital partners (e.g., Hall & Taylor, 1976). Hall and Taylor (1976) instructed participants to read a series of vignettes describing positive and negative behaviors and indicate after each vignette the extent to which they attributed the actor’s behavior to situational or dispositional factors. When participants imagined their spouse in the vignettes, participants were more likely to attribute positive behaviors to dispositional factors and negative behaviors to situational factors. A similar pattern of effects was found for vignettes about close friends; however, the effect was weaker (Hall & Taylor, 1976). These findings suggest that people enhance their evaluations of close others in the same way that they enhance their own self-evaluations.

**Narcissism and relationship-enhancing responses.** Existing evidence suggests that people with high levels of narcissism do not engage in relationship-enhancing behaviors to the same extent as those lower on narcissism (if at all). For example, Campbell et al. (2002b) asked participants to rate their romantic partners on a series of traits relative to the average person. They also asked participants to rate how their romantic partners compared to ratings of themselves on a series of traits. People with high self-esteem displayed a better-than-average effect in ratings for relationship partners compared to average others on negative traits, and they did not rate themselves as better than their romantic partner on trait ratings. In stark contrast to these findings, people
with high levels of narcissism rated themselves better than their relationship partners on trait ratings, and they did not rate their romantic partner as being better than the average person (Campbell et al., 2002b).

At times, self-enhancement motivations may be at odds with relationship-enhancing behaviors. People desire closeness and intimacy with their romantic partners, but they fear the rejection that may occur (Murray et al., 2006). Murray’s risk regulation model proposes that people only risk attachment to a partner when they feel secure in their relationship and they believe that their relationship partners love and accept them (Murray et al., 2006; Murray, Holmes, & Griffin, 2000). Given the association between narcissism and a preference for perfect rather than caring partners and an aversion of intimacy (Campbell et al., 2002a), it can be expected that people with high levels of narcissism would feel less secure in their relationships. As a result of this felt insecurity, people with high levels of narcissism would prioritize self-enhancement and self-protection goals rather than risk rejection by engaging in relationship-promoting behaviors. Correspondingly, recent research found that people with high levels of narcissism displayed more negative behaviors toward their romantic partner and reported lower levels of relationship commitment after a romantic conflict (Longua Peterson & DeHart, 2013). These findings suggest that people with high levels of narcissism withdraw from their romantic partner to protect the self when there is a risk of rejection. Therefore, if narcissistic defensiveness stems from an underlying fear of rejection, then activating feelings of acceptance and belonging may alleviate or buffer these insecurities.
Subsequently, people with high levels of narcissism may be able to set aside self-enhancement concerns and engage in relationship-enhancing behaviors instead.

**Summary**

There are a variety of strategies that can be used to directly and indirectly maintain and enhance self-views, such as unrealistic optimism, better-than-average effects on trait ratings, decreasing actual-ideal discrepancies on trait ratings, and self-serving biases. Individual differences and situational factors influence which self-enhancement strategies are used at any given time (e.g., Hepper et al., 2010; Sedikides & Gregg, 2008). For example, previous research has demonstrated that people with high levels of narcissism tend to self-enhance to a greater extent than people with low levels of narcissism, and this effect is found for a wide range of self-enhancement strategies (e.g., Campbell et al., 2000a; Campbell et al., 2002b; Emmons, 1984; Farwell & Wohlwend-Lloyd, 1998; Stucke, 2003). Direct self-enhancement strategies, such as enhancing one’s own abilities or derogating others, are sometimes deemed socially inappropriate because the self-enhancer may be perceived as boastful or unlikeable. Instead of using direct self-enhancement strategies, people can self-enhance indirectly by enhancing their evaluations of close others. People with high levels of narcissism, however, are more likely to self-enhance directly, even at the expense of their relationship partners. That is, people with high levels of narcissism may self-enhance at the expense of relationship partners in order to protect the self from the risk of rejection. However, activating feelings of acceptance may reduce the extent to which people with high levels of narcissism use direct self-enhancement strategies. The next section reviews theoretical and empirical
research on belonging as well as various interventions that have been used to reduce narcissistic defensiveness in previous research.
CHAPTER 4

BELONGING AND ACCEPTANCE

In Maslow’s (1943) hierarchy of needs, the need for belonging is only superseded by the needs for sustenance and security. More recently, Baumeister and Leary (1995) reviewed empirical evidence that suggests that people have a fundamental need to belong and feel accepted, and their main conclusions will be reviewed here briefly. From an evolutionary perspective, belonging to a group was critical to survival and reproduction. People form social bonds with each other easily, and they are hesitant to break these social bonds. For example, Tajfel’s minimal group paradigm illustrates how quickly and easily people form social bonds (e.g., Tajfel, Billig, Bundy, Flament, 1971). Simply being assigned to the same arbitrary category (e.g., red shirts or blue shirts) is enough to feel group identification. Moreover, people devote much cognitive effort to relationships and belonging, and cognitions about relationship partners are different from cognitions about non-close others (e.g., Aron et al., 1991). Baumeister and Leary also noted that people experience positive affect during feelings of belonging and negative affect during rejection. Furthermore, there are serious mental and physical consequences associated with deprivation of belonging. Overall, people are motivated to engage in positive social interactions and to sustain these relationships over time.

The definitions of acceptance and belonging will be presented next, and the remainder of this section reviews research on monitoring and maintaining relational
values, need to belong as an individual difference variable, and acceptance-related interventions that have been used to reduce narcissistic defensive. Acceptance means that people indicate that they want to have a relationship with you and include you in their groups (DeWall & Bushman, 2011; Leary, 2010). Levels of acceptance can range on a continuum from tolerating a person’s presence to actively seeking a relationship with another (Leary, 2010). The term belonging is commonly used by researchers in two different ways: (1) a universal motive to form and sustain relationships (e.g., Baumeister & Leary, 1995), and (2) a person’s membership to a group that accepts him or her (Leary, 2010). Cues that a person is accepted by others could serve to satisfy his or her belongingness needs.

**Monitoring and Maintaining Relational Value**

People want to affiliate with others and they also want to appear like the type of person that other people want to interact with (Leary, 2010). Relational value can be defined as, “the degree to which one person regards his or her relationship with another individual as valuable or important” (Leary, 2010, p. 870). People feel accepted when they feel that they have a high relational value with someone, and they feel rejected when they perceive that they have a low relational value (Leary, 2010). A person’s perception of their relational value is subjective and related to their desired relational value in a given situation, not their actual levels of acceptance or rejection.

Leary’s sociometer theory argues that self-esteem plays an important role in monitoring relational value (Leary et al., 1995). According to the sociometer theory, fluctuations in self-esteem, particularly decreases in state self-esteem, alert people when
there’s a risk of rejection (Leary et al., 1995). In other words, self-esteem reflects how socially accepted a person feels. When self-esteem is low and people feel unaccepted, it signals that there is a threat or problem that requires attention (i.e., there is a risk of being rejected). Daily experiences lead to small fluctuations in state self-esteem. For example, rejection cues and negative feedback can lead to decreases in self-esteem, which motivates people to behave in ways to increase their feelings of acceptance. The sociometer theory postulates that many self-enhancing behaviors (e.g., self-serving biases) that are associated with increases in self-esteem may actually serve to increase feelings of acceptance and relational value (e.g., Leary, 2010; Leary & Baumeister, 2000). Extending the sociometer theory to narcissism suggests that the increased self-enhancement associated with high levels of narcissism may reflect a desire to increase acceptance by others.

Gardner and colleagues (e.g., Pickett & Gardner, 2005) postulate that decreases in state belonging activate the social monitoring system, which increases sensitivity to social cues and strategies for increasing acceptance and inclusion. For instance, feelings of rejection increase people’s recall of socially-relevant information (Gardner, Pickett, & Brewer, 2000). In addition, DeWall, Baumeister, and Vohs (2008) provide evidence that acceptance satiates the motivation to belong and reduces self-regulation on tasks that are diagnostic for social acceptance, whereas rejection increases the need to belong.

Although belonging is a universal motive, people differ on the extent to which they need to belong and feel accepted (Leary, Kelly, Cottrell, & Schreindorfer, 2012). Need to belong, an individual difference variable, reflects concerns about being accepted
by others, desire to be accepted, and fear of rejection. Need to belong is unrelated to a person’s perceived or actual level of belonging or acceptance (Leary et al., 2012). For instance, there is no relation between need to belong and the amount of time spent alone, perceived belongingness, or loneliness (Leary et al., 2012). Need to belong is positively related to neuroticism, suggesting that people with high need to belong may experience more negative emotions when they do not feel accepted (Leary et al., 2012). On a related note, a high need to belong is associated with greater sensitivity to social cues, such as facial expressions (Pickett, Gardner, & Knowles, 2004).

**Attempts to Reduce Narcissistic Defensiveness**

Researchers have used several different strategies to reduce narcissistic defensiveness, including self-affirmations (Thomaes, Bushman, Orobio de Castro, Cohen, & Denissen, 2009a), forming unit relations (Konrath, Bushman, & Campbell, 2006), and establishing a communal orientation (Finkel, Campbell, Buffardi, Kumashiro, & Rusbult, 2009).

Some research suggests that self-affirmations may reduce defensive responses in people with high levels of narcissism (e.g., Thomaes et al., 2009a). A central tenet of self-affirmation theory is that people are motivated to maintain self-integrity, defined as the belief that the self is good and moral (Sherman & Cohen, 2006; Steele, 1988). Consequently, people may respond defensively when their self-integrity is threatened. Self-affirming other important aspects of the self-concept can buffer the effects of threat in one area. Self-affirmations can be created from activating core aspects of self, such as roles, values, group identities, beliefs, goals, and relationships.
Recent research found that adolescents who completed a self-affirmation writing exercise about their two or three most important values engaged in less narcissistic aggression at school compared to adolescents who completed a control task (Thomaes et al., 2009a). One of the values that people most commonly choose to write about during a self-affirmation task is relationships with friends and family (Creswell, Lam, Stanton, Taylor, Bower, & Sherman, 2005; Sherman & Cohen, 2006). Therefore, it is possible that the self-affirmations used in Thomaes et al.’s (2009a) study were effective because they specifically activated feelings of belonging and acceptance rather than generally affirming other aspects of the self.

In general, self-affirmations are most effective at buffering threats when people affirm values outside of the domain that is threatened (e.g., Sherman & Cohen, 2006); however, this does not appear to be the case for threats to belonging. Studies have demonstrated that people prefer to affirm threats to belonging with a relationship affirmation, rather than other threat-irrelevant affirmations (Knowles, Lucas, Molden, Gardner, & Dean, 2010). In a series of studies, participants received an intelligence threat or a belonging threat and then they were given an option of affirming the self with either a threat-relevant (i.e., the threat type matched the affirmation type) or threat-irrelevant affirmation. People tended to use relationship affirmations after a belonging threat, whereas people affirmed threat-irrelevant aspects of the self after an intelligence threat. These findings suggest that belonging and acceptance affirmations may be more effective than other types of values-affirmations at reducing narcissistic defensiveness,
because narcissistic defensive may be motivated by underlying interpersonal insecurities (e.g., Bosson et al., 2008).

In addition, Crocker and colleagues conducted studies to determine the mechanism that explains why self-affirmation manipulations reduce defensive responses to threat (Crocker, Niiya, & Mischkowski, 2009). The researchers found that writing about a personally important (vs. unimportant) value elicited more other-oriented feelings, such as love. Nearly half of the participants chose to write about social life and relationships as their most important value. Other-oriented feelings were also activated by other important values, such as religion-morality and science-pursuit of knowledge, but the effect was not as strong (Crocker et al., 2008). The researchers argue that affirming important values leads people to “transcend the self” by thinking about other people, objects, or issues that matter to them.

Using a different approach, Konrath et al. (2006) conducted a series of studies to assess whether forming “unit relations” between the evaluator and the person with high narcissism would reduce narcissistic aggression. A unit relation refers to creating an association or a link between the two individuals on some dimension, such as sharing a birthday. Given the extremely positive self-views of people with high narcissism, Konrath et al. (2006) postulated that people with high levels of narcissism would be less likely to aggress toward people they associate with themselves. Participants were asked to write an essay and they received negative feedback that appeared to come from either another participant (a confederate) or the experimenter. After receiving the negative feedback, participants were given an opportunity to aggress against the other participant
by blasting them with loud sounds in a purportedly separate task. When there was a unit relation (i.e., shared birthday) between the participant and the evaluator, narcissistic entitlement (a subscale of the Narcissism Personality Inventory) was unrelated to aggression toward the evaluator. However, when there was no unit relation, participants who were high on narcissistic entitlement aggressed more against their evaluator (Konrath et al., 2006). Konrath et al. (2006) replicated these findings in a second study using shared fingerprint type as the unit relation.

In general, people with high (vs. low) levels of narcissism tend to have less of a communal orientation (Finkel et al., 2009). However, this may be a defensive response, because people with high levels of narcissism also desire to be admired and they self-enhance in front of others (e.g., improved performance when there are others present). Finkel and colleagues (2009) found that activating a communal orientation increases relationship commitment in people with high levels of narcissism. In addition, these communal activations have a stronger effect on people with high (vs. low) levels of narcissism. Communal activation increases people’s motivations to behave in a more communal way, which is characterized by increased warmth, helpfulness, and concern for others. Finkel et al. (2009) manipulated communal activation in several ways. In one study, communal activation was unconsciously primed using images of people interacting together (vs. independently). People with high levels of narcissism in the communal prime condition (vs. control) reported that relationship commitment traits (e.g., committed, faithful) were more self-descriptive. However, the communal prime was unrelated to endorsement of relationship commitment traits for people with lower
narcissism levels. In a second study, Finkel et al. (2009) found that people with high levels of narcissism who reported that their spouses elicited more communal feelings (e.g., nurturing, generous) from them also reported higher commitment over time. Again, communal activation was unrelated to relationship commitment for people who were low on narcissism. In a third study, romantic couples were videotaped as they discussed important personal goals with each other, and then they were asked to view the videotapes. For both people with high and low levels of narcissism, people who reported feeling more loved and cared for during the videotaped interaction reported greater relationship commitment (Finkel et al., 2009). However, this effect was stronger for people with high levels of narcissism.

Twenge and Campbell (2003) conducted a study looking at the relation between rejection/acceptance and narcissistic aggression. Participants completed a closeness-induction exercise with other participants they had just met, and then they were told to indicate who they wanted to work with in a group. Participants received false feedback indicating that either no one wanted to work with them (social rejection) or everyone wanted to work with them (social acceptance). In the acceptance condition, high (vs. low) levels of narcissism were associated with less anger. In the rejection condition, high (vs. low) levels of narcissism were associated with increased anger. In a separate study, Twenge and Campbell (2003) found that people with high (vs. low) levels of narcissism were more likely to display displaced aggression after social rejection. When socially accepted, there was no relation between narcissism and displaced aggression.
The common thread between these various interventions aimed at reducing narcissistic defensiveness or aggression is that they all appear to be, at least in part, activating feelings of acceptance and belonging. For example, the self-affirmation exercise may have shifted people’s focus from the self to others who are important to them (Crocker et al., 2009; Thomaes et al., 2009a). The unit relation manipulations highlighted ways that the evaluator was similar to the participant, ways that they belonged together (Konrath et al., 2006). Finally, the current research poses an alternative explanation for the effectiveness of the communal activation manipulations in Finkel et al.’s (2009) study, which is that the manipulations are activating feelings of acceptance.

**Summary**

Belonging is a fundamental need that has important implications for one’s physical and mental health. Belonging-regulatory processes, such as the sociometer (Leary, 2005) and social monitoring system (Picket & Gardner, 2005), serve to monitor and maintain belonging. Previous studies have reduced narcissistic defensiveness and aggression in people with high levels of narcissism by affirming valued aspects of the self (Thomaes et al., 2009a), identifying similarities with others (Konrath et al., 2006), and establishing a communal orientation (Finkel et al., 2009). A commonality amongst all of these manipulations is that they may be indirectly activating feelings of acceptance. The goal of the current research was to examine whether affirming feelings of acceptance would reduce defensive self-enhancement in people with high levels of narcissism, and
that the effectiveness of affirming acceptance is distinct from the effectiveness of affirming other aspects of the self.
CHAPTER 5
CURRENT RESEARCH

The goal of the current research was to test whether activating feelings of belonging and acceptance can reduce defensive responses in people with high levels of narcissism. This research question was explored within the context of self-enhancement and relationship-enhancement. Two studies were used to address this research question. The first study focused on individual self-enhancement tendencies. I examined whether an acceptance-affirmation manipulation (vs. intelligence affirmation or control conditions) reduced the need to use these self-enhancement strategies in people with high levels of narcissism. In the second study, I examined the effects of activating feelings of acceptance on the relation between narcissism and self- and relationship-enhancing behaviors. Taken together, these studies provide new insight into the role that acceptance plays in the relation between narcissism and self-enhancement.

Hypotheses

Hypothesis 1a

Theoretical conceptualizations and empirical research suggest that people with high narcissism possess grandiose, inflated self-views that they vigilantly defend against ego-threats, such as negative feedback or interpersonal rejection (e.g., Bushman &
Baumeister, 1998; Horton & Sedikides, 2009; Kernis & Sun, 1994; Morf & Rhodewalt, 2001; Morf et al., 2011a; Stucke & Sporer, 2002). This narcissistic defensiveness may be exacerbated by underlying insecurities and self-doubts, particularly in regards to interpersonal skills and acceptance by others (e.g., Bosson et al., 2008). Accordingly, the current research predicted that affirming acceptance would buffer feelings of interpersonal insecurity, and thereby reduce narcissistic defensiveness. I hypothesized that in the control condition, people with high levels of narcissism would self-enhance significantly more than people with low levels of narcissism. However, in the acceptance condition, the relation between narcissism and self-enhancement was expected to be attenuated. Hypothesis 1a was tested in Study 1.

**Hypothesis 1b**

If Hypothesis 1a were supported, two competing explanations would exist as to why the acceptance affirmation may lead people with high levels of narcissism to behave less defensively. The current research proposes that the people with high levels of narcissism have deep-seated insecurities about being accepted by others, which lead people with high levels of narcissism to respond defensively to ego-threats in order to maintain or increase their relational value. However, an alternative explanation for these findings is that the acceptance affirmation functions in much the same way as any other type of self-affirmation. If this were the case, an intelligence affirmation would be as effective at reducing narcissistic defensiveness as the acceptance affirmation. In addition, an intelligence affirmation was selected as a counterpoint to the acceptance affirmation, because intelligence is an agentic characteristic and people with high
narcissism tend to respond differently to agentic and communal stimuli (e.g., Campbell et al., 2002b). Hypothesis 1b is that the acceptance affirmation will be significantly more effective at reducing narcissistic defensiveness compared to the intelligence affirmation. Specifically, in the intelligence-affirmation condition, people with high levels of narcissism were expected to self-enhance significantly more than people with low levels of narcissism. However, in the acceptance condition, the relation between narcissism and self-enhancement was expected to be weaker. Hypothesis 1b was tested in Study 1.

**Hypothesis 2**

People with high levels of narcissism tend to blame task partners for failures on interdependent tasks, yet they take personal credit for successes (Campbell et al., 2000a; Farwell & Wohlwend-Lloyd, 1998). This suggests that people with high levels of narcissism prioritize self-enhancing goals over relationship-enhancing goals, presumably to reduce the risk or pain of interpersonal rejection. Consequently, it was predicted that affirming feelings of acceptance will reduce the need to self-enhance at the expense of their relationship for people with high narcissism, which in turn, will promote relationship-enhancing behaviors. In the control condition, people with high (vs. low) levels of narcissism were expected to take greater personal responsibility for successes, whereas people with high (vs. low) levels of narcissism were expected to take less responsibility for failures. In contrast, in the acceptance condition, it was predicted that people with high and low levels of narcissism would make more similar attributions of responsibility in the success or failure conditions. Hypothesis 2 was tested in Study 2.
Hypothesis 3

In general, people with high levels of narcissism tend to display fewer relationship-enhancing behaviors compared to people with lower levels of narcissism. For instance, people with high levels of narcissism tend to report lower levels of commitment to their romantic partners (e.g., Campbell & Foster, 2002; Campbell et al., 2002a; Longua Peterson & DeHart, 2013). However, researchers have been successful at increasing how committed people with high narcissism are to their romantic partners by activating communal orientations (Finkel et al., 2009). It was predicted that acceptance affirmations would also be effective at elevating the love that people with high narcissism have for their romantic partner. In the control condition, people with high levels of narcissism are expected to display significantly lower levels of love compared to people with low levels of narcissism after success feedback, and this negative relation between narcissism and love for one’s partner is expected to be stronger after failure feedback. In contrast, in the acceptance condition, people with high and low levels of narcissism were both expected to report more similar levels of love for their romantic partner. The same pattern of findings was also expected for the perceived partner love dependent variable. Hypothesis 3 was tested in Study 2.

Study 1

The primary purpose of Study 1 was to test whether acceptance affirmations were effective at reducing defensive self-enhancement tendencies in people with high levels of narcissism (Hypotheses 1a and 1b). In the control and intelligence-affirmation conditions, it was hypothesized that people with high levels of narcissism would display
significantly more self-enhancement tendencies compared to people with low levels of narcissism. Specifically, people with high (vs. low) levels of narcissism were expected to report significantly larger better-than-average effects, higher levels of unrealistic optimism, and smaller actual-ideal discrepancies on self-trait ratings. However, in the acceptance affirmation condition, it was predicted that the difference between people with high and low narcissism on the self-enhancement measures would be reduced.

In addition, self-esteem, gender, emotional stability, and post-manipulation mood were included in the regression models as covariates. The analyses controlled for self-esteem, because self-esteem is positively related to narcissism, and people with higher (vs. lower) self-esteem tend to display greater self-enhancement (e.g., Campbell et al., 2002b). Gender was included as a covariate because of gender stereotypes associating men with more agentic traits and women with more communal traits (e.g., Eagly & Johannesen-Schmidt, 2001; Medera, Hebl, & Martin, 2009). In addition, narcissism scores tend to be higher for men compared to women (e.g., Foster, Campbell, & Twenge, 2003). Finally, emotional stability (i.e., the opposite of neuroticism) was included as a covariate because it was positively related to self-enhancement, and there tends to be a negative correlation between narcissism and neuroticism (Bradlee & Emmons, 1992; Kubarych et al., 2004; Rhodewalt & Morf, 1995).

**Study 1: Method**

**Participants.** A total of 240 participants enrolled in this study. Four people were excluded from the analyses because they did not complete the experimental manipulation, resulting in a final sample of 236 participants (52.5% female). Participants were
randomly assigned to the acceptance-affirmation \((n = 78)\), intelligence-affirmation \((n = 79)\), or control \((n = 79)\) condition. Over half of the participants were first year students \((61\%)\), and the ages of the participants ranged from 18 to 33 years \((M = 19.79, SD = 1.58)\). In addition, participants were predominantly White \((n = 156, 66.1\%)\). Participants were recruited from the Loyola University Chicago participant pool and upper-level Psychology courses, and they were told that the study focused on their attitudes and beliefs about the self and others. Participants received course credit as compensation for their involvement in the study.

**Procedures.** Participants completed the study individually on a computer using MediaLab. When participants arrived at the lab, they read and signed the informed consent form, and then they received instructions about participating in the study. Participants first completed individual difference measures, including the Narcissistic Personality Inventory, Rosenberg Self-esteem Scale, Need to Belong Scale, Emotional Stability measure, and demographic questions. Then, participants were randomly assigned to one of three experimental conditions: 1) acceptance affirmation, 2) intelligence affirmation, or 3) control condition. Participants also completed a manipulation check to ensure that the acceptance- and intelligence-affirmation manipulations were effective, and they reported their post-manipulation mood. After completing the manipulation check and mood items, participants provided actual and ideal trait ratings (used to calculate better-than-average effects and actual-ideal discrepancies in trait ratings) followed by a measure of unrealistic optimism. After the study, participants were thanked, debriefed, and assigned course credit.
Measures and manipulations. Appendix A contains the measures and manipulations that were used in Study 1.

Narcissistic Personality Inventory. The Narcissistic Personality Inventory (NPI; Raskin & Hall, 1979) assesses individual differences in levels of trait narcissism. The NPI consists of 40 items (α = .84) that are each comprised of a pair of statements, one statement in each pair is more indicative of narcissistic tendencies (e.g., “I have a natural talent for influencing people” and “I am not good at influencing people”). Participants were instructed to indicate which statement is closer to their feelings about themselves. The measure was scored by tallying the number of narcissistic statements that were selected as being most self-descriptive, and higher scores reflect greater levels of trait narcissism.

Rosenberg Self-esteem Scale. The Rosenberg Self-Esteem Scale (Rosenberg, 1965) was used to assess participants’ level of explicit self-evaluations. The 10-item (α = .88) scale measures the favorability of people’s self-evaluations (e.g., “On the whole, I am satisfied with myself” and “I feel that I have a number of good qualities”). Participants responded on a 7-point scale (1 = strongly disagree, 7 = strongly agree). Some items were reverse-coded, so that higher scores indicate greater levels of self-esteem. An overall explicit self-esteem score was calculated for each participant by averaging responses on the ten items.

Need to Belong. The 10-item (α = .81) Need to Belong Scale (NBS; Leary et al., 2012) assesses the strength of people’s belongingness needs and concerns about being accepted (e.g., “If other people don’t seem to accept me, I don’t let it bother me”
(reverse-scored) and “I try hard not to do things that will make other people avoid or reject me”). Participants rated each item on a 7-point scale (1 = disagree very much, 7 = agree very much). Items were scored so that higher scores indicated greater need to belong, and an overall need to belong score was calculated by averaging across items.

**Emotional Stability.** Emotional Stability was measured using the 2-item subscale from the Ten Item Personality Inventory (TIPI; Gosling, Rentfrow, & Swann, 2003). Participants rated the extent to which two pairs of adjectives (i.e., “calm, emotionally stable” and “anxious, easily upset”) applied to them on a 7-point scale (1 = strongly disagree, 7 = strongly agree). One item was reverse-coded, and the two items were averaged together, \( r(234) = .48, p < .001 \). Higher scores indicate greater levels of emotional stability (i.e., lower neuroticism).

**Demographic questions.** Participants were asked to report their date of birth, gender, year in college, and ethnicity.

**Experimental manipulation.** Participants in the acceptance affirmation, intelligence affirmation, and control conditions were instructed to think and write about a past experience. Participants in the **acceptance affirmation** condition received the following prompt:

> Please think about a time when another person made you feel like you were accepted and that you belonged. It might have been a time when someone acted caring toward you or helped you when you needed help. Take some time and remember an event that was important and pleasurable for you. Please write a thorough description of the event and how you felt.

Participants in the **intelligence affirmation** condition received the following instructions:
Please think about a time when you performed well in an academic setting. It might have been a time when you got an A on an exam, when you received a good grade on an important assignment or wrote a great paper. Take some time and remember an event that was important and pleasurable for you. Please write a thorough description of the event and how you felt.

Participants in the control condition read the following:

Please think about the last movie that you watched. Please provide (1) the title of the movie, (2) a brief summary of what happened in the movie and (3) how much you liked or disliked the movie. Do not worry very much about particular details. Take some time and remember the last movie that you watched. Please write a basic description of the movie and how you felt.

**Manipulation check.** After the experimental manipulation, participants completed measures of felt acceptance and felt intelligence. Participants reported how accepted they felt after recalling the event (i.e., valued, accepted, included, rejected) on a 7-point scale (1 = not at all, 7 = very). The acceptance items were recoded so that higher scores reflected greater acceptance, and the four items were averaged together into a measure of felt acceptance ($\alpha = .81$).

Participants also indicated how smart and successful they felt after recalling the event on a 7-point scale (1 = not at all, 7 = very). Participants’ responses to the items assessing how smart and how successful they felt were highly correlated, so the two items were averaged together and used as a measure of felt intelligence, $r (234) = .77, p < .001$.

**Post-manipulation mood.** Four items were used to assess participants’ mood after they recalled the event (i.e., happy, depressed, content, sad) on a 7-point scale (1 = not at all, 7 = very). The negative mood items were reverse-scored, and the four items were averaged together into an overall measure of positive mood ($\alpha = .80$).
**Trait ratings.** Participants provided self-report ratings on ten agentic (i.e., athletic, foolish) and ten communal (i.e., generous, stubborn) traits. The agentic and communal traits included a mixture of positive (i.e., competent, affectionate) and negative (i.e., lazy, unforgiving) traits. Participants reported actual trait ratings and ideal trait ratings. Adapted from procedures used by Alicke (1985), participants provided actual trait ratings on how self-descriptive the traits were for them relative to the average college student using a 9-point scale (1 = *much less than the average college student*, 9 = *much more than the average college student*). After providing actual ratings for all 20 traits, participants then indicated how they would ideally rate themselves on each trait compared to the average college student (1 = *much less than the average college student*, 9 = *much more than the average college student*).

The actual trait ratings were used to calculate better-than-average effect scores. Actual ratings for negative traits were reverse-scored, so larger scores reflected greater self-enhancement. An overall better-than-average effect was calculated by averaging across all actual trait ratings (α = .73). Better-than-average effect subscales were calculated separately for seven agentic traits (α = .66) and ten communal traits (α = .73).  

The actual and ideal trait ratings were used to calculate participants’ actual-ideal trait discrepancies. Actual and ideal trait ratings for negative traits were reverse-scored. An overall actual-ideal discrepancy score was calculated by subtracting participants’ ideal self-ratings on each trait from their actual self-ratings, and averaging the actual-

---

1 The actual ratings for the ten agentic traits displayed poor internal consistency (α = .59). Three agentic traits (i.e., athletic, creative, and assertive) were excluded from the subscale in order to increase the measure’s reliability.
ideal scores across all traits ($\alpha = .88$). Greater, more positive scores indicate greater self-enhancement. Subscales were also calculated for actual-ideal discrepancies on the ten agentic traits ($\alpha = .80$) and ten communal traits ($\alpha = .79$).

**Unrealistic optimism.** Unrealistic optimism (adapted from Weinstein, 1980) was assessed by asking participants to indicate the likelihood that they will experience five positive and five negative life events compared to their peers ($\alpha = .75$). The likelihood that each event will occur at some point during one’s life was reported on a 9-point scale ($1 = \text{extremely below average}, \ 9 = \text{extremely above average}$). Responses to the negative items were reverse-coded so that higher scores reflected unrealistic optimism that negative events were less likely to happen to them compared to the average college student, and then responses across all items were averaged to calculate an overall unrealistic optimism score. Subscales were calculated for unrealistic optimism for positive events (i.e., belief that positive events are more likely to happen to them compared to others; $\alpha = .64$) and unrealistic optimism for negative events (i.e., belief that negative events are less likely to happen to them compared to others; $\alpha = .72$).

**Study 1: Results**

**Overview of analysis procedures.** Following procedures outlined by Aiken and West (1991), the hypotheses were tested using multiple regressions to examine the effects of narcissism and experimental condition on self-enhancement processes (i.e., better-than-average ratings, unrealistic optimism, or actual-ideal discrepancies). The narcissism variable and covariates were centered by subtracting the mean score for the sample from
each individual score. The three experimental conditions were coded into two new dummy-coded variables with the acceptance-affirmation condition coded as the comparison group. Specifically, the first dummy-coded variable compared the acceptance-affirmation and intelligence-affirmation conditions (recoded as acceptance = 0, intelligence = +1, control = 0), and the second dummy-coded variable compared the acceptance-affirmation and control conditions (recoded as acceptance = 0, intelligence = 0, control = +1). The centered narcissism variable, the two dummy-coded variables comparing experimental conditions, and the two interaction terms (i.e., cross-products of narcissism and dummy-coded variables) were entered as predictors in a simultaneous multiple regression equation. In addition, self-esteem, gender, emotional stability, and post-manipulation mood were included in the regression models as covariates.

The nature of significant interactions was determined by examining the within-group simple slopes (Aiken & West, 1991). The simple slope for narcissism predicting self-enhancement in the acceptance condition was examined first. The simple slope for narcissism in the acceptance condition was calculated in the initial multiple regression analysis, because acceptance was the comparison group in the dummy-coding. The simple slope for narcissism in the intelligence (or control) condition was obtained by recoding the dummy variables so that intelligence (or control) was the comparison group. A multiple regression analysis was conducted using the same predictors (narcissism,

---

2 The background variables did not significantly differ across conditions.

3 However, men and women did not significantly differ on narcissism in Study 1. In addition, gender did not moderate any of the reported effects.
dummy-coded variables, interaction terms, and covariates), except this time the comparison group was the intelligence (or control) condition.

**Manipulation check.** A one-way ANOVA revealed that levels of felt acceptance significantly differed across the three conditions after the experimental manipulation, $F(2, 233) = 48.17, p < .001$. Specifically, participants in the acceptance-affirmation condition ($M = 6.30, SD = .84$) reported significantly higher levels of felt acceptance compared to participants in the intelligence-affirmation ($M = 5.81, SD = 1.11$) and control ($M = 4.73, SD = 1.11$) conditions, $t(155) = 3.12, p = .002$, and $t(155) = 9.99, p < .001$, respectively. These results suggest that the acceptance-affirmation manipulation was effective at increasing levels of felt acceptance.

Levels of felt intelligence also significantly differed across conditions, $F(2, 233) = 50.77, p < .001$. Participants in the intelligence affirmation condition ($M = 6.27, SD = 1.02$) reported significantly higher levels of felt intelligence compared to participants in the acceptance affirmation condition ($M = 4.60, SD = 1.31$) and control condition ($M = 4.34, SD = 1.53$), $t(155) = 8.96, p < .001$ and $t(156) = 9.29, p < .001$, respectively. These findings indicate that the intelligence affirmation manipulation was effective.

In addition, post-manipulation mood significantly differed across conditions, $F(2, 233) = 16.48, p < .001$. Participants in the intelligence-affirmation condition ($M = 6.19, SD = .92$) reported significantly more positive mood compared to participants in the acceptance-affirmation condition ($M = 5.77, SD = 1.06$), $t(155) = -2.65, p = .009$. Participants in the acceptance condition reported significantly more positive mood compared to participants in the control condition ($M = 5.19, SD = 1.27$), $t(155) = 3.07, p$
This difference in mood across conditions was not an intended outcome of the acceptance affirmation and intelligence affirmation, and it was necessary to distinguish the effects of the affirmations from the effects of mood. Therefore, all of the Study 1 analyses included mood as a covariate to control for the effect of mood on the dependent variables.  

**Narcissism and condition predicting self-enhancement.** To test whether the acceptance affirmation was effective at reducing defensive self-enhancement tendencies in people with high levels of narcissism, I ran a series of multiple regressions predicting self-enhancement (i.e., better-than-average ratings, actual-ideal discrepancies, and unrealistic optimism) from the two dummy-coded two-way interactions between narcissism and condition (and the main effects).

**Better-than-average effects.** A multiple regression analysis was run on the overall better-than-average effect scores (see left column of Table 1). The analysis revealed significant main effects for self-esteem and emotional stability. Specifically, higher self-esteem and higher emotional stability were both associated with greater self-enhancement. In addition, the main effect of narcissism was marginally significant, suggesting that higher narcissism is associated with greater better-than-average effects on trait ratings. Contrary to the hypothesis, the acceptance affirmation did not attenuate the

---

4 The Narcissism x Condition interaction was not significant for mood, felt acceptance, or felt intelligence, which suggests that the manipulation was not experienced differently for people with high vs. low narcissism.
relation between narcissism and the better-than-average effect. There were no other significant main effects or interactions.\(^5\)

Next, these regression analyses were conducted separately for the same trait ratings above on agentic and communal traits. For ratings on agentic traits, there was a significant main effect of self-esteem, \(b = .39, \beta = .33, p < .001\). People with high (vs. low) self-esteem reported greater self-enhancement on agentic traits. In addition, there was a marginally significant Narcissism x Acceptance vs. Control Dummy Variable two-way interaction on agentic trait ratings (see Figure 1), \(b = -.05, \beta = -.16, p = .085\). In the control condition, there was no relation between narcissism and agentic trait ratings, \(b = -.01, \beta = -.06, p = .614\). In the acceptance condition, the simple slope of narcissism on better-than-average effects on agentic traits was marginally significant, \(b = .04, \beta = .23, p = .066\). In other words, after the acceptance affirmation, people with high narcissism self-enhanced more on ratings of agentic traits. The Narcissism x Acceptance vs. Intelligence Dummy Variable two-way interaction was not significant \((p = .331)\), which suggests that the relation between narcissism and agentic trait ratings did not differ for people in the acceptance and intelligence conditions. The pattern of findings for communal trait ratings was the same as the findings for the overall measure of better-than-average effects, with the addition of a significant main effect of gender, \(b = .18, \beta = .18, p = .004\). This finding suggests that women self-enhance more than men on ratings of communal traits.

\(^5\) The Narcissism x Intelligence vs. Control Dummy Variable two-way interaction was not significant in any of the reported analyses—this is the comparison not represented in the way the dummy-coded variables are presented in the text.
Unrealistic optimism. The same regression model was used to predict levels of unrealistic optimism (see middle column of Table 1). There was a significant main effect of self-esteem, indicating that people with high self-esteem tended to display more unrealistic optimism. Contrary to hypotheses, narcissism was unrelated to unrealistic optimism, and the acceptance affirmation did not moderate any effects. No other main effects or interaction terms were significant. The same pattern of results was found when the analyses were conducted separately for unrealistic optimism about positive events and unrealistic optimism about negative events.

Actual-ideal discrepancy. A multiple regression analysis was conducted on the measure of actual-ideal discrepancies in trait ratings (see right column of Table 1). Contrary to hypotheses, there was no relation between narcissism and actual-ideal discrepancies, and the acceptance affirmation did not influence self-enhancement. This analysis failed to reveal any significant main effects or interactions. Similarly, no significant effects were found when these analyses were conducted separately for actual-ideal differences on communal traits and agentic traits.
Table 1. Multiple Regression Results for Narcissism and Condition Predicting Self-enhancement

<table>
<thead>
<tr>
<th></th>
<th>Better-than-Average Effect</th>
<th>Unrealistic Optimism</th>
<th>Actual-Ideal Discrepancy</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>( b )</td>
<td>( \beta )</td>
<td>( t )</td>
</tr>
<tr>
<td>Intercept</td>
<td>6.04**</td>
<td>75.18</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emotional Stability</td>
<td>0.11**</td>
<td>.21</td>
<td>3.23</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>0.08†</td>
<td>.10</td>
<td>1.67</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-esteem</td>
<td>0.29**</td>
<td>.37</td>
<td>5.36</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mood</td>
<td>0.02</td>
<td>.03</td>
<td>0.50</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Narcissism</td>
<td>0.03†</td>
<td>.22</td>
<td>1.89</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acceptance vs. Intelligence Dummy Variable</td>
<td>0.03</td>
<td>.02</td>
<td>0.82</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acceptance vs. Control Dummy Variable</td>
<td>-0.02</td>
<td>-0.13</td>
<td>-1.38</td>
</tr>
<tr>
<td>Narcissism x Acceptance vs. Intelligence Dummy Variable</td>
<td>-0.02</td>
<td>-0.09</td>
<td>-1.06</td>
</tr>
</tbody>
</table>

Note. ** \( p < .01 \), * \( p < .05 \), † \( p < .10 \)
Figure 1. Narcissism and condition predicting better-than-average effects for agentic traits.

Ancillary analyses. Ancillary analyses were conducted to determine whether the influence of the acceptance affirmation on levels of self-enhancement for people with high and low levels of narcissism depended on a moderating variable. Specifically, need to belong was identified as a key variable of interest, because a high need to belong reflects a concern or worry about being accepted by others (Leary et al., 2012).

The next set of analyses tested whether need to belong moderated the relation between narcissism and experimental condition predicting self-enhancement. I ran a series of multiple regressions predicting self-enhancement (i.e., better-than-average ratings, actual-ideal discrepancies, and unrealistic optimism) from the three-way
interaction among narcissism, need to belong, and the two dummy-coded condition variables (and all main effects, interaction terms, and covariates). These analyses were conducted using overall scores and subscales for each self-enhancement variable (i.e., better-than-average effects on agentic and communal traits, unrealistic optimism for positive and negative events, and actual-ideal differences on agentic and communal trait ratings). The analyses of the self-enhancement subscales provided a more detailed picture of the relation between the study variables compared to the analyses using overall scores. As a result, only the results from the analyses of the self-enhancement subscales will be presented here.

**Better-than-average effects.** Looking first at narcissism, need to belong, and condition as predictors of better-than-average effects on agentic traits, there was a significant main effect of self-esteem on agentic trait ratings (see left column of Table 2). Higher self-esteem was associated with more favorable ratings on agentic traits. The three-way interactions were not significant, and there were no other significant effects.\(^6\)

Analyses revealed a very different pattern of results for communal traits. Running the regression model with better-than-average ratings on communal traits entered as the criterion variable produced both a significant Narcissism x Need to Belong x Acceptance vs. Intelligence Dummy Variable three-way interaction and a significant Narcissism x Need to Belong x Acceptance vs. Control Dummy Variable three-way interaction (see right column of Table 2). To unpack these three-way interactions, the Narcissism x Need to Belong two-way interaction was examined separately in the

---

\(^6\) The Narcissism x Need to Belong x Intelligence vs. Control Dummy Variable three-way interaction was not significant in any of the reported analyses.
acceptance, intelligence, and control conditions. In the control condition, the Narcissism x Need to Belong two-way interaction and the narcissism simple slope were not significant. This indicates that there was no relation between narcissism and self-enhancement scores in the control condition, and this finding held for people with high and low need to belong.

In the acceptance condition, there was a significant Narcissism x Need to Belong two-way interaction (see Figure 2), $b = .05$, $\beta = .35$, $p = .010$. Examining the simple-simple slope for people with high need to belong in the acceptance condition, there was a significant positive association between narcissism and better-than-average ratings on communal traits, $b = .07$, $\beta = .45$, $p = .036$. For people with low need to belong in the acceptance condition, there was a marginally significant negative relation between narcissism and communal trait ratings, $b = -.04$, $\beta = -.29$, $p = .063$. These findings suggest that following an acceptance affirmation, people with high narcissism self-enhance less on communal trait ratings when they have a weak need to belong, but they self-enhance more on communal traits when they have a strong need to belong.

The Narcissism x Need to Belong two-way interaction was also significant in the intelligence condition, $b = -.04$, $\beta = -.23$, $p = .006$. For people with high need to belong in the intelligence condition, there was a significant negative relation between narcissism and ratings on communal traits, $b = -.05$, $\beta = -.36$, $p = .002$. In other words, following an intelligence affirmation, people with high (vs. low) narcissism self-enhanced less when they had a high need to belong. However, for people with low need to belong in the intelligence condition, there was no relation between narcissism and communal trait
ratings, $b = .02, \beta = .13, p = .332$. For people with low need to belong who recalled an academic success, their communal trait ratings were unrelated to their narcissism levels. These findings suggest that the intelligence affirmation was effective at decreasing self-enhancement on communal traits when people with high narcissism had a high need to belong. Furthermore, the acceptance and intelligence affirmations had divergent effects on the relation between narcissism and self-enhancement on communal traits, which suggests that the acceptance affirmation is functioning differently than other types of self-affirmations.

**Unrealistic optimism.** The next set of analyses focused on narcissism, need to belong, and condition predicting unrealistic optimism for positive and negative events. The analyses focusing on unrealistic optimism for positive events will be presented first. There was a main effect of self-esteem on unrealistic optimism for positive events, indicating that people with high self-esteem thought positive events were more likely to happen to them compared to the average college student (see left column of Table 3). In addition, analyses revealed a significant Narcissism x Need to Belong x Acceptance vs. Control Dummy Variable three-way interaction predicting unrealistic optimism for positive events. In the control condition, the Narcissism x Need to Belong interaction was not significant, $p = .864$, but there was a significant simple slope of narcissism on unrealistic optimism for positive events, $b = .05, \beta = .24, p = .039$ (see Figure 3). People who scored higher on narcissism in the control condition tended to indicate that positive events were more likely to happen to them compared to the average college student.
Table 2. Multiple Regression Results for Narcissism, Need to Belong (NBS), and Condition Predicting Better-than-Average Effects

<table>
<thead>
<tr>
<th></th>
<th>Better-than-Average Effect</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Agentic Traits</td>
<td></td>
<td>Communal Traits</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>b</td>
<td>β</td>
<td>t</td>
<td>b</td>
<td>β</td>
</tr>
<tr>
<td>Intercept</td>
<td></td>
<td>6.33**</td>
<td>48.38</td>
<td></td>
<td>6.13**</td>
<td>59.80</td>
</tr>
<tr>
<td>Emotional Stability</td>
<td></td>
<td>0.01</td>
<td>.02</td>
<td>0.26</td>
<td>0.21**</td>
<td>.30</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td>0.09</td>
<td>.08</td>
<td>1.27</td>
<td>0.12*</td>
<td>.12</td>
</tr>
<tr>
<td>Self-esteem</td>
<td></td>
<td>0.40**</td>
<td>.34</td>
<td>4.41</td>
<td>0.31**</td>
<td>.30</td>
</tr>
<tr>
<td>Mood</td>
<td></td>
<td>0.04</td>
<td>.04</td>
<td>0.52</td>
<td>0.04</td>
<td>.05</td>
</tr>
<tr>
<td>Narcissism</td>
<td></td>
<td>0.03</td>
<td>.19</td>
<td>1.42</td>
<td>0.01</td>
<td>.08</td>
</tr>
<tr>
<td>Need to Belong (NBS)</td>
<td></td>
<td>-0.03</td>
<td>-.02</td>
<td>-0.18</td>
<td>0.50**</td>
<td>.48</td>
</tr>
<tr>
<td>A vs. I</td>
<td></td>
<td>-0.03</td>
<td>-.01</td>
<td>-0.17</td>
<td>0.06</td>
<td>.03</td>
</tr>
<tr>
<td>A vs. C</td>
<td></td>
<td>-0.05</td>
<td>-.02</td>
<td>-0.28</td>
<td>-0.09</td>
<td>-.04</td>
</tr>
<tr>
<td>Narcissism x NBS</td>
<td></td>
<td>-0.02</td>
<td>-.13</td>
<td>-0.89</td>
<td>0.05**</td>
<td>.35</td>
</tr>
<tr>
<td>Narcissism x A vs. I</td>
<td></td>
<td>-0.02</td>
<td>-.06</td>
<td>-0.59</td>
<td>-0.03</td>
<td>-.13</td>
</tr>
<tr>
<td>Narcissism x A vs. C</td>
<td></td>
<td>-0.04</td>
<td>-.14</td>
<td>-1.45</td>
<td>-0.01</td>
<td>-.04</td>
</tr>
<tr>
<td>NBS x A vs. I</td>
<td></td>
<td>0.05</td>
<td>.02</td>
<td>0.26</td>
<td>-0.52**</td>
<td>-.28</td>
</tr>
<tr>
<td>NBS x A vs. C</td>
<td></td>
<td>-0.06</td>
<td>-.03</td>
<td>-0.33</td>
<td>-0.29*</td>
<td>-.17</td>
</tr>
<tr>
<td>Narcissism x NBS x A vs. I</td>
<td></td>
<td>0.01</td>
<td>.03</td>
<td>0.24</td>
<td>-0.09**</td>
<td>-.41</td>
</tr>
<tr>
<td>Narcissism x NBS x A vs. C</td>
<td></td>
<td>0.03</td>
<td>.09</td>
<td>0.86</td>
<td>-0.07**</td>
<td>-.27</td>
</tr>
</tbody>
</table>

Notes. ** p < .01, * p < .05, † p < .10. A vs. I = Acceptance vs. Intelligence Dummy Variable; A vs. C = Acceptance vs. Control Dummy Variable.
Figure 2. Narcissism, condition, and need to belong (NBS) predicting better-than-average effect on communal trait ratings.
In the acceptance condition, there was a significant two-way interaction between narcissism and need to belong, $b = -.09, \beta = -.45, p = .002$. For people with high need to belong in the acceptance condition, there was a significant negative relation between narcissism and unrealistic optimism for positive events, $b = -.09, \beta = -.46, p = .049$. Specifically, people with high narcissism displayed lower levels of unrealistic optimism for positive events after an acceptance affirmation when they had a high need to belong; however, the opposite pattern was found for people with a low need to belong. For people with low need to belong in the acceptance condition, there was a significant positive relation between narcissism and unrealistic optimism for positive events, $B = .09, \beta = .48, p = .004$. People with high (vs. low) narcissism and a low need to belong displayed greater unrealistic optimism for positive events after recalling a time when they felt accepted (similar to participants in the control condition).

A different pattern of results was found when unrealistic optimism for negative events was used as the criterion variable (see right column of Table 3). There was a significant main effect of self-esteem, indicating that people with high (vs. low) self-esteem tended to report that negative events were less likely to happen to them compared to the average college student. Analyses also revealed a significant Narcissism x Need to Belong x Acceptance vs. Intelligence Dummy Variable three-way interaction and a marginally significant Narcissism x Need to Belong x Acceptance vs. Control Dummy Variable three-way interaction. The Narcissism x Need to Belong two-way interaction was not significant in the control or acceptance conditions, $p = .257$, and $p = .150$, respectively (see Figure 4). In the acceptance and control conditions, there was no
relation between narcissism and unrealistic optimism for negative events, and this did not vary based on people’s level of need to belong.

However, in the intelligence condition, there was a significant two-way interaction between narcissism and need to belong predicting unrealistic optimism for negative events, $b = -0.05$, $\beta = -0.23$, $p = .013$. For people with high need to belong in the intelligence condition, there was no relation between narcissism and reports of unrealistic optimism for negative events, $p = .374$. However, for people with low need to belong in the intelligence condition, high narcissism was significantly associated with greater unrealistic optimism that negative events were less likely to happen to them compared to the average college student, $b = 0.07$, $\beta = 0.37$, $p = .015$. 
Table 3. Multiple Regression Results for Narcissism, Need to Belong (NBS), and Condition Predicting Unrealistic Optimism

<table>
<thead>
<tr>
<th></th>
<th>Positive Events</th>
<th></th>
<th>Negative Events</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>b</td>
<td>β</td>
<td>T</td>
<td>b</td>
</tr>
<tr>
<td>Intercept</td>
<td>5.92**</td>
<td>40.69</td>
<td>7.02**</td>
<td>48.84</td>
</tr>
<tr>
<td>Emotional Stability</td>
<td>0.06</td>
<td>.06</td>
<td>0.89</td>
<td>0.05</td>
</tr>
<tr>
<td>Gender</td>
<td>-0.03</td>
<td>-.03</td>
<td>-0.41</td>
<td>0.01</td>
</tr>
<tr>
<td>Self-esteem</td>
<td>0.39**</td>
<td>.29</td>
<td>3.89</td>
<td>0.37**</td>
</tr>
<tr>
<td>Mood</td>
<td>-0.07</td>
<td>-.06</td>
<td>-0.89</td>
<td>0.12</td>
</tr>
<tr>
<td>Narcissism</td>
<td>0.00</td>
<td>.01</td>
<td>0.10</td>
<td>0.00</td>
</tr>
<tr>
<td>NBS</td>
<td>-0.02</td>
<td>-.02</td>
<td>-0.14</td>
<td>0.23</td>
</tr>
<tr>
<td>A vs. I</td>
<td>0.23</td>
<td>.08</td>
<td>1.11</td>
<td>0.10</td>
</tr>
<tr>
<td>A vs. C</td>
<td>0.10</td>
<td>.03</td>
<td>0.47</td>
<td>0.00</td>
</tr>
<tr>
<td>Narcissism x NBS</td>
<td>-0.09**</td>
<td>-.45</td>
<td>-3.09</td>
<td>0.04</td>
</tr>
<tr>
<td>Narcissism x A vs. I</td>
<td>0.05</td>
<td>.16</td>
<td>1.51</td>
<td>0.01</td>
</tr>
<tr>
<td>Narcissism x A vs. C</td>
<td>0.05</td>
<td>.13</td>
<td>1.34</td>
<td>-0.01</td>
</tr>
<tr>
<td>NBS x A vs. I</td>
<td>-0.03</td>
<td>-.01</td>
<td>-0.12</td>
<td>-0.07</td>
</tr>
<tr>
<td>NBS x A vs. C</td>
<td>0.00</td>
<td>.00</td>
<td>0.01</td>
<td>-0.14</td>
</tr>
<tr>
<td>Narcissism x NBS x A vs. I</td>
<td>0.05</td>
<td>.17</td>
<td>1.46</td>
<td>-0.09*</td>
</tr>
<tr>
<td>Narcissism x NBS x A vs. C</td>
<td>0.09*</td>
<td>.27</td>
<td>2.55</td>
<td>-0.07†</td>
</tr>
</tbody>
</table>

Notes. ** p < .01, * p < .05, † p < .10. A vs. I = Acceptance vs. Intelligence Dummy Variable; A vs. C = Acceptance vs. Control Dummy Variable.
Figure 3. Narcissism, condition, and need to belong (NBS) predicting unrealistic optimism for positive events.
Figure 4. Narcissism, condition, and need to belong (NBS) predicting unrealistic optimism for negative events.
**Actual-ideal discrepancy.** The final set of analyses for Study 1 examined narcissism, need to belong, and condition as predictors of actual-ideal discrepancies on agentic and communal trait ratings. Focusing first on analyses with agentic traits as the criterion variable, there was a significant Narcissism x Need to Belong x Acceptance vs. Intelligence Dummy Variable three-way interaction (see left column of Table 4). In the intelligence condition, neither the simple slope of narcissism nor the Narcissism x Need to Belong two-way interaction was significant, \( p = .219 \), and \( p = .563 \), respectively (see Figure 5). Narcissism scores were also unrelated to actual-ideal discrepancies on agentic trait ratings in the control condition. However, in the acceptance condition, there was a significant Narcissism x Need to Belong two-way interaction, \( b = .07, \beta = .34, p = .030 \).

For people with high need to belong in the acceptance condition, narcissism was significantly related to smaller actual-ideal discrepancies (i.e., greater self-enhancement) on agentic traits, \( b = .12, \beta = .63, p = .011 \). For people with low need to belong in the acceptance condition, there was no relation between narcissism and actual-ideal discrepancies on agentic traits, \( p = .652 \).

Running the regression analyses with actual-ideal discrepancies on communal traits as the criterion variable revealed a significant main effect of need to belong (see right column of Table 4). In other words, people with a high need to belong reported smaller actual-ideal discrepancies on communal trait ratings, which indicates greater self-enhancement. Analyses also produced both a significant Narcissism x Need to Belong x Acceptance vs. Intelligence Dummy Variable three-way interaction and a significant Narcissism x Need to Belong x Acceptance vs. Control Dummy Variable three-way
interaction. In the control condition, there was a marginally significant simple slope of narcissism, $b = .04$, $\beta = .24$, $p = .053$ (see Figure 6). This finding indicates that people with high levels of narcissism displayed greater self-enhancement on actual-ideal ratings on communal traits (regardless of level of need to belong). The Narcissism x Need to Belong two-way interaction was not significant in the control condition, $p = .554$. In the intelligence condition, there were no significant main effects or interaction terms, $ps > .289$.

In the acceptance condition, there was a significant Narcissism x Need to Belong two-way interaction, $b = .11$, $\beta = .57$, $p < .001$. For people with high need to belong in the acceptance condition, narcissism was significantly related to greater self-enhancement on actual-ideal ratings for communal traits, $b = .15$, $\beta = .85$, $p = .001$. However, for people with low need to belong in the acceptance condition, narcissism was a significant predictor of less self-enhancement on actual-ideal ratings for communal traits, $b = -.06$, $\beta = -.35$, $p = .047$. These findings indicate that people with high (vs. low) narcissism display smaller actual-ideal discrepancies on communal traits after an acceptance affirmation when they have a high need to belong (i.e., more self-enhancement), but people with high (vs. low) narcissism self-enhance larger actual-ideal discrepancies on communal traits after an acceptance affirmation when they have low need to belong (i.e., less self-enhancement).
Table 4. Multiple Regression Results for Narcissism, Need to Belong (NBS), and Condition Predicting Actual-Ideal Discrepancies

<table>
<thead>
<tr>
<th></th>
<th>Agentic Traits</th>
<th>Communal Traits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>B</td>
</tr>
<tr>
<td>Intercept</td>
<td>-1.26**</td>
<td></td>
</tr>
<tr>
<td>Emotional Stability</td>
<td>-0.03</td>
<td>-0.03</td>
</tr>
<tr>
<td>Gender</td>
<td>0.06</td>
<td>0.05</td>
</tr>
<tr>
<td>Self-esteem</td>
<td>0.03</td>
<td>0.02</td>
</tr>
<tr>
<td>Mood</td>
<td>-0.03</td>
<td>-0.02</td>
</tr>
<tr>
<td>Narcissism</td>
<td>0.05*</td>
<td>0.27</td>
</tr>
<tr>
<td>Need to Belong</td>
<td>-0.13</td>
<td>-0.10</td>
</tr>
<tr>
<td>A vs. I</td>
<td>0.21</td>
<td>0.075</td>
</tr>
<tr>
<td>A vs. C</td>
<td>0.04</td>
<td>0.01</td>
</tr>
<tr>
<td>Narcissism x NBS</td>
<td>0.07*</td>
<td>0.34</td>
</tr>
<tr>
<td>Narcissism x A vs. I</td>
<td>-0.03</td>
<td>-0.10</td>
</tr>
<tr>
<td>Narcissism x A vs. C</td>
<td>-0.01</td>
<td>-0.03</td>
</tr>
<tr>
<td>NBS x A vs. I</td>
<td>0.05</td>
<td>0.02</td>
</tr>
<tr>
<td>NBS x A vs. C</td>
<td>-0.35†</td>
<td>-0.16</td>
</tr>
<tr>
<td>Narcissism x NBS x A vs. I</td>
<td>-0.08*</td>
<td>-0.27</td>
</tr>
<tr>
<td>Narcissism x NBS x A vs. C</td>
<td>-0.04</td>
<td>-0.11</td>
</tr>
</tbody>
</table>

Notes. ** p < .01, * p < .05, † p < .10. A vs. I = Acceptance vs. Intelligence Dummy Variable; A vs. C = Acceptance vs. Control Dummy Variable.
Figure 5. Narcissism, condition, and need to belong (NBS) predicting actual-ideal discrepancies on agentic traits.
Figure 6. Narcissism, condition, and need to belong (NBS) predicting actual-ideal discrepancies on communal traits
Study 1: Discussion

It was hypothesized that the acceptance affirmation would be effective at reducing defensive self-enhancement in people with high (vs. low) levels of narcissism. The analyses failed to support this hypothesis based on an examination of the two-way interaction between narcissism and experimental condition on self-enhancement. Overall, people in the acceptance, intelligence, and control conditions tended to self-enhance in similar ways across all three self-enhancement measures (i.e., better-than-average effects, unrealistic optimism, and actual-ideal discrepancies on trait ratings).

However, an important outcome of Study 1 was that it revealed that the effects of affirming acceptance in people with high levels of narcissism are more complicated than initially conceptualized. Specifically, need to belong moderated the relation between narcissism and experimental condition as predictors of self-enhancement, and the effects of the acceptance affirmation were distinct from the effects of the intelligence affirmation. In general, for people with low need to belong in the acceptance condition, high (vs. low) narcissism was associated with less self-enhancement (on communal trait ratings). However, for people with high need to belong in the acceptance condition, people with high (vs. low) levels of narcissism self-enhanced more (on communal and agentic trait ratings). This suggests that the acceptance manipulation was effective at reducing defensive self-enhancement for people with high narcissism when they had a low need to belong. However, activating feelings of acceptance in people with high
levels of narcissism and high need to belong may actually also activate concerns about rejection or a lack of acceptance.

Why would an acceptance affirmation trigger what appears to be rejection-related responses? One potential explanation is that the acceptance affirmation also activated cognitions and feelings about the specific person who made them feel accepted, and the nature of this relationship also influenced self-regulation processes. Andersen and colleagues propose that activation of a significant-other representation also activates aspects of the self that are related to the significant other (i.e., relational selves; Andersen & Chen, 2002; Andersen, Miranda, & Edwards, 2001). If the relationship with the significant other is negative and perceived as a threat to the self, then this could lead to self-protective responses, such as defensive self-enhancement processes (Andersen et al., 2001). Because of their worries about being accepted by others, it is plausible that people who have a high need to belong may feel less secure with their relationship partners. Unfortunately, this issue cannot be explored in the current data, because participants were not asked to report specific information about their relationship partner in this study.

The pattern of findings on the relation between narcissism, acceptance, and need to belong on self-enhancement was more consistent on the communal trait ratings than it was on the agentic trait ratings. This difference may be due to the greater relevance of the acceptance manipulation to the communal traits compared to the agentic traits. However, the intelligence manipulation did not appear to have any influence on participants’ self-enhancement on agentic traits. In fact, the relation between narcissism,
need to belong, and the intelligence affirmation as predictors of self-enhancement seems inconsistent in the present study. It is possible that another moderating variable, such as need for achievement, may shed more light on the effects of the intelligence affirmation on the relation between narcissism and self-enhancement.

It is also important to note that the pattern of findings found for the better-than-average effect and actual-ideal discrepancy outcomes did not hold true for the unrealistic optimism analyses. The acceptance manipulation reduced the relation between narcissism and unrealistic optimism for positive events for people who had a high need to belong, but it appeared to have little influence on people with low need to belong (for them, higher narcissism was associated with greater unrealistic optimism on positive events). It is likely that the differences in the pattern of findings may be due to the nature of the outcome measures. The unrealistic optimism measure asks participants to make judgments about how likely it is that they will experience an event in their lifetime compared to the average college student; whereas, the other outcomes measures asked participants to rate how self-descriptive the traits were for them relative to the average college student.

**Study 2**

Study 1 examined the effects of activating feelings of acceptance on self-enhancement in people with high and low levels of narcissism. Study 1 focused on three forms of direct self-enhancement: better-than-average effects, actual-ideal discrepancies on trait ratings, and unrealistic optimism. Study 2 extends the findings from Study 1 by
examining the effectiveness of the acceptance manipulation on reducing the use of direct self-enhancement strategies in the context of romantic relationships. Previous research has demonstrated that people with high narcissism tend to display a self-serving bias on dyadic tasks, which is evidence that people with high narcissism prioritize self-enhancement over relationship-enhancement (Campbell et al., 2000a). The purpose of Study 2 was to examine whether affirming acceptance would attenuate the association between narcissism and the extent to which people display a self-serving bias after receiving feedback on a task that they completed with their romantic partner. In the control condition, people with high (vs. low) narcissism were expected to take greater personal responsibility for successes, whereas people with high (vs. low) narcissism were expected to take less responsibility for failures. In contrast, it was predicted that in the acceptance condition, people with high and low levels of narcissism were expected to make more similar attributions of responsibility following success or failure feedback (Hypothesis 2).

Study 2 also explored the effects of acceptance affirmations on the relation between narcissism and perceptions of their romantic relationship. In the control condition, people with high narcissism were expected to display significantly lower levels of love for their partner and perceived partner love compared to people with low narcissism after success feedback, and this negative relation between narcissism and love for one’s partner was expected to be stronger after failure feedback. In contrast, in the acceptance condition, people with high and low levels of narcissism were expected to report more similar levels of love for their romantic partner (Hypothesis 3).
Study 2: Method

Participants. The sample consisted of 108 couples (216 individuals) in romantic relationships (109 men, 107 women). On average, the romantic couples were together for 20 months ($M = 19.88, SD = 10.10$), and the relationship lengths ranged from 2 to 113 months. The majority of romantic couples were dating while living at separate residences ($n = 180$), and the rest of the participants were either dating and cohabitating ($n = 31$) or married and living together ($n = 5$). Approximately one-third of the participants were first year students ($n = 65$), followed by sophomores ($n = 45$), juniors ($n = 45$), seniors ($n = 38$), and people not enrolled in college ($n = 23$). Participants were predominantly White ($n = 146, 67.6\%$) and heterosexual ($n = 208, 96.3\%$). The ages of the participants ranged from 18 to 34 years ($M = 20.78, SD = 2.78$). Romantic couples were randomly assigned to either the acceptance ($n = 108$) or control conditions ($n = 108$), and couples were also randomly assigned to receive success ($n = 108$) or failure ($n = 108$) feedback.

In order to be eligible for the study, participants had to be at least 18 years old and in a monogamous romantic relationship lasting for 2 months or longer. A cover story was used to disguise the purpose of the study. Participants were told the purpose of the second half of the study was to assess the effects of brainstorming on the creativity of dyads. Participants were recruited through multiple sources, including the experiment pool and campus flyers. Participants in experimental pool were compensated with 1 experimental credit, and their romantic partner received a $10$ gift card. Otherwise, each
couple received two $10 gift cards to compensate them for their time. Couples were also entered into a lottery for a chance to win an additional $50 gift card.

**Procedure.** Each romantic couple was tested separately. When the dyad arrived at the lab, the participants were seated at separate computers with their backs facing each other. The experimenter provided an overview of the study, and then participants read and signed the informed consent forms. Participants then completed the background measures in MediaLab, including measures of narcissism, explicit self-esteem, need to belong, relationship commitment, demographic questions, and details about their relationship.

Once both participants completed the background surveys, the experimenter introduced the second part of the study. Following procedures used by Sedikides et al. (1998) and Campbell et al. (2000a, 2000b) to measure self-serving bias, the experimenter informed the participants that they would complete a brainstorming task, called the Lange-Elliot Creativity Task, to measure the creativity level of the couple. All dyads were told that they would be completing the creativity task individually because they were in the control group, but their final score on the creativity task would still be based upon their combined performance. When the experimenter finished the task instructions, one member of the dyad was moved to a separate room, and both participants began the brainstorming task. Participants remained in separate rooms for the remainder of the session.
After the brainstorming task was finished, the experimenter asked participants to complete some additional measures while the score for the creativity task was being calculated. During this time, participants completed the acceptance manipulation, manipulation check, and post-manipulation mood measure. Couples were randomly assigned to either the acceptance manipulation or a control condition. For this manipulation, participants were asked to write about a time when they felt accepted by their romantic partner or a time when they watched a movie with their romantic partner.

Next, the couples were randomly assigned to either the success or failure condition. The experimenter gave the bogus feedback face-to-face to each participant separately. After participants received feedback on their performance, participants were asked to indicate how responsible each person was for the task outcome and to complete some additional relationship measures. Participants were then reunited and debriefed about the purpose of the study and the bogus nature of the feedback. Finally, participants were thanked and compensated for their time.

**Measures and manipulations.** Appendix B contains the measures and manipulations that were used in Study 2.

**Narcissism Personality Inventory.** This is the same measure of narcissism that was administered in Study 1 ($\alpha = .82$).

**Rosenberg Self-esteem Scale.** This is the same measure of self-esteem that was administered in Study 1 ($\alpha = .85$).
Need to Belong Scale. This is the same measure of need to belong that was administered in Study 1 ($\alpha = .80$).

Relationship commitment. Participants completed Rusbult, Martz, and Agnew’s (1998) 7-item ($\alpha = .86$) measure assessing how committed they were to their romantic relationship (e.g., “I want our relationship to last for a long time” and “I am committed to maintaining my relationship with my partner”). For each statement, participants were asked to indicate their level of agreement using a 7-point scale (1 = do not agree at all, 7 = agree completely). Two items were reverse-coded so that higher scores reflect greater commitment toward their romantic partner and relationship, and all items were averaged together.

Relationship quality. Participants completed a 1-item measure assessing the recent quality of their relationship (e.g., “Please report how your relationship has been going for the past week”). Higher scores on the 7-point scale indicate greater recent relationship quality (1 = much worse than usual, 7 = much better than usual).

Demographics and relationship characteristics. Participants were asked to report their date of birth, gender, year in college, and ethnicity. In addition, participants were asked to report relationship length, and relationship status (i.e., dating and not living together, dating and living together, or married and living together).

Creativity task. Following procedures used in past research (Campbell et al., 2000a; Campbell et al., 2000b; Sedikides et al., 1998), a cover story was used to mask the purpose of the creativity task. Participants were informed that they would complete two
different brainstorming tasks as part of the Lange-Elliot Creativity Task. The procedure was designed to increase ambiguity about how well the romantic partner performed on the task in order to assess how they attribute responsibility of performance in the absence of objective performance data. To this end, participants were told in advance that they would receive normative, dyadic-level performance feedback after the task. Participants were told that their responses would be combined, and they would receive a total creativity score based on the number of non-overlapping responses. Participants were informed that the experimenter would be unable to determine which participant is more responsible for the overall result. Participants were placed in separate rooms for the task in order to eliminate verbal and non-verbal communication between participants, and they were told that they would complete the brainstorming task separately because they are in the control condition.

During the creativity task, participants completed two brainstorming tasks, each lasting for 5 minutes. In the first task, participants were instructed to list as many uses for a brick as possible. In the second task, participants were instructed to generate as many uses for a candle as possible. Participants wrote each idea on a separate slip of paper, and the experimenter collected the responses in a covered box after each round. After the second round, the experimenter appeared to score participants’ responses while the participants completed additional measures.

**Acceptance manipulation.** Couples were randomly assigned to either the acceptance or control condition. In each condition, participants read a prompt that asked...
them to think and write about a previous experience with their romantic partners.

Participants in the acceptance condition received the following instructions:

Please think of a time when you felt intensely accepted, valued, and included by your romantic partner. It might have been a time when your partner was caring to you, when your partner helped you when you needed him/her, or a time when your partner kept an important promise he/she made to you. Take some time and remember an event that was important and pleasurable for you. Write a description of this event and how you felt at the time of the event.

Participants in the control condition were asked to describe the last movie that they saw with their romantic partners. Participants in the control condition received the following prompt:

Please provide a brief description of the last movie you saw with your romantic partner. Please provide (1) the title of the movie, (2) a brief summary of what happened in the movie and (3) how much you liked or disliked the movie. Take some time and remember the last movie that you watched with your romantic partner. Write a description of this event and how you felt at the time of the event.

**Acceptance manipulation check.** After the experimental manipulation, participants were asked to complete four items assessing how accepted they felt (i.e., excluded, accepted, included, rejected) on a 7-point scale (1 = not at all, 7 = very). The acceptance items were recoded so that higher scores reflected greater acceptance, and the four items were averaged together into a measure of felt acceptance ($\alpha = .71$).

**Post-manipulation mood.** Participants were also asked to report the emotions they felt when they recalled the event (i.e., happy, depressed, content, sad) on a 7-point scale (1 = not at all, 7 = very). The negative mood items were reverse-scored, and the four items were averaged together into an overall measure of positive mood ($\alpha = .75$).
Feedback type. Each romantic couple was randomly assigned to either the success or failure feedback conditions. After the brainstorming task, participants received the bogus feedback while they were still in separate rooms. The experimenter gave the feedback in-person, and the participant was shown a histogram illustrating the results. Couples in the success condition were informed separately: “Your total score on the Lange-Elliot Creativity Task was calculated to be at the 93rd percentile. This means that you and your partner’s creativity score was better than 93% of the couples used in our normative reference sample. You did well.” Couples in the failure condition were told individually: “Your total score on the Lange-Elliot Creativity Task was calculated to be at the 31st percentile. This means that you and your partner’s creativity score was worse than 69% of the couples used in our normative reference sample. You did poorly.”

Attributions of responsibility. Following procedures used by Sedikides et al. (1998), immediately after receiving the performance feedback, participants were asked to indicate which participant was most responsible for the study outcomes on a 10-point scale (1 = the other participant, 10 = myself). Higher scores on this measure in the success condition compared to the failure condition are evidence of a self-serving bias.

Love for partner. Participants completed a 4-item (α = .84) measure assessing their love for their romantic partner (adapted from Simpson, Rholes, & Phillips, 1996). This measure assessed participants’ current feelings of love and commitment to their romantic partner (e.g., “Right now, how much love do you feel toward your partner or your relationship?”). Participants responded on a 7-point scale (1 = very little, 7 = very
much), and the 4 items were averaged together. Higher scores indicate greater feelings of state love for their partner.

**Perceived partner love.** Participants completed a 4-item ($\alpha = .85$) measure assessing their current beliefs about how much their romantic partner loves them and feels committed to their relationship (adapted from Simpson, Rholes, & Philp, 1996). This measure assesses their perceptions of their partners’ current feelings of love toward them (e.g., “Right now, how much do you think your partner loves you?”). Participants responded on a 7-point scale ($1 = \text{very little}, 7 = \text{very much}$), and the items were averaged together. Higher scores indicate greater feelings of perceived partner love.

**Feedback manipulation check.** To check whether participants were aware of the feedback manipulation, participants were asked to report how well the dyad performed on the brainstorming tasks on a 7-point scale ($1 = \text{not at all well}, 7 = \text{very well}$). Participants were also asked to report their percentile score on the creativity test.

**Study 2: Results**

**Overview of analysis procedures.** The data include two levels of analysis with individual responses (Level 1) nested within romantic couples (Level 2). Data collected from romantic couples are not independent because the members of the romantic couple may share more in common with each other than they do with members of other romantic couples. Therefore, multilevel regression analyses were used to control for dependencies in the data while simultaneously estimating regression equations using data from both members of the romantic dyad (Campbell & Kashy, 2002; Kenny, Kashy, & Bolger,
1998; Kenny, Kashy, & Cook, 2006). Data were analyzed using linear mixed-effects models (MIXED) procedure in SPSS.

When analyzing dyadic data, three types of variables may be present in the data: between-dyad variables, within-dyad variables, and mixed variables (Kenny, 1996). Between-dyad variables refer to variables where both members of the dyad have the same value, and the value varies between dyads. In this study, the acceptance condition and feedback condition are between-dyad variables. Between-dyad variables were always specified as Level-2 predictors in the model. Within-dyad variables are variables for which each member of the dyad has a different score, but the total score is the same across dyads. Within-dyad variables were always modeled as Level-1 predictors, because there is no variation between dyads. For example, gender is a within-dyad variable when the dyads are comprised of one male and one female; however, gender is a mixed variable in this study because the sample included a same-sex couple. Mixed variables are variables where the scores can vary both between- and within-dyad (e.g., narcissism). Mixed variables can be modeled as Level-1 or Level-2 predictors. The current study focused on actor effects (i.e., the effect of participants’ own level of narcissism on outcome variables) rather than partner effects (i.e., the effect of the romantic partner’s narcissism score on the participants’ outcomes); therefore, narcissism was modeled as a Level-1 predictor. The other mixed variables included in the analyses
were relationship length, gender, explicit self-esteem, relationship commitment, and relationship quality.

Multilevel regression analyses were used to test Hypotheses 2 and 3. Specifically, narcissism, acceptance condition, feedback condition, all possible cross-product interaction terms, and covariates were entered into the model predicting the dependent variable (i.e., attribution of responsibility, love for partner, and perceived partner love). Narcissism, covariates, other continuous predictor variables were centered around the grand mean. The acceptance and feedback conditions were effects-coded (-1 or +1) for the omnibus analyses and dummy-coded (0 or +1) for simple slope analyses. Self-esteem, gender, and relationship length were included as covariates. For instance, the predictors of attribution of responsibility were specified in the following way:

\[
\text{Attribution of responsibility}_{ij} = \gamma_{00} + \gamma_{01}(\text{narcissism}) + \gamma_{02}(\text{relationship length}) + \\
\gamma_{03}(\text{gender}) + \gamma_{04}(\text{self-esteem}) + \gamma_{11}(\text{acceptance condition}) + \gamma_{12}(\text{feedback condition}) + \gamma_{13}(\text{narcissism x acceptance}) + \gamma_{14}(\text{narcissism x feedback}) + \gamma_{15} (\text{acceptance x feedback}) + \gamma_{16} (\text{narcissism x acceptance x feedback}) + u_{0j} + u_{1j} + \\
r_{ij}.
\]

---

7 Participants’ reported relationship length was highly correlated with their partners \((r = .78, p < .001)\), but not identical. Therefore, relationship length was a mixed variable in these analyses.

8 The background variables (i.e., narcissism, explicit self-esteem, need to belong, relationship commitment, and relationship quality last week) did not significantly differ across conditions.

9 Men \((M = 18.63, SD = 6.69)\) were significantly higher on narcissism compared to women \((M = 16.65, SD = 6.41)\), \(t(214) = 2.22, p = .027\)
Each individual attribution of responsibility score (person $i$ in dyad $j$) is a function of the average attribution of responsibility score observed across dyads ($\gamma_{00}$), the participant’s level of narcissism ($\gamma_{01}$), the participant’s relationship length ($\gamma_{02}$), the gender of the participant ($\gamma_{03}$), the participant’s self-esteem level ($\gamma_{04}$), the effect of the acceptance manipulation ($\gamma_{11}$), the effect of the feedback manipulation ($\gamma_{12}$), the effect of the cross-product interaction between acceptance condition and narcissism ($\gamma_{13}$), the effect of the cross-product interaction between narcissism and feedback condition ($\gamma_{14}$), the effect of the cross-product interaction between acceptance condition and feedback condition ($\gamma_{15}$), the effect of the three-way interaction among narcissism, acceptance condition, and feedback condition ($\gamma_{16}$), random variation between dyads ($u_{0j}$ and $u_{1j}$), and random variation within dyads ($r_{ij}$). Significant interactions were broken down following procedures developed by Aiken and West (1991).

When Narcissism x Feedback Condition x Acceptance Condition three-way interactions were significant, two multilevel regression analyses were conducted to compare the effects of narcissism, feedback, and the Narcissism x Feedback Condition two-way interaction on attribution of responsibility separately for participants in the acceptance and control conditions. When there was a significant Narcissism x Feedback Condition two-way interaction, follow-up simple-simple slopes tests were conducted to determine the nature of the significant interaction within the acceptance or control condition. Specifically, looking only at participants in the acceptance or control conditions, two multilevel regression analyses were conducted to examine the relation
between narcissism and attribution of responsibility separately for participants in the success condition and failure condition.

**Manipulation checks.** Following the acceptance manipulation, participants in the acceptance condition ($M = 6.43, SD = .83$) reported significantly higher levels of acceptance compared to participants in the control condition ($M = 6.10, SD = 1.00$), $b = .16, t(106) = 2.63, p = .010$. This suggests that recalling and writing about a time when they felt accepted by their romantic partner was effective at activating feelings of acceptance. Post-manipulation mood did not significantly differ for participants in the acceptance ($M = 6.14, SD = .99$) and control ($M = 6.07, SD = .96$) conditions, $b = .04, t(106) = 0.52, p = .608$.

At the end of the study, participants were asked to report how well they did on the creativity test as well as their percentile score. Participants in the success condition ($M = 6.47, SD = .76$) rated their performance more favorably compared to participants in the failure condition ($M = 3.56, SD = 1.73$), $b = 1.45, t(106) = 14.65, p < .001$. When asked to recall their percentile scores, participants in the success condition also reported significantly higher scores ($M = 92.66, SD = 4.23$) compared participants in the failure condition ($M = 32.48, SD = 6.04$), $b = 30.09, t(106) = 83.18, p < .001$. In addition, 73.1% of participants in the failure condition and 93.5% of participants in the success condition

---

10 The Narcissism x Acceptance Condition interaction was not significant for felt acceptance or mood, which suggests that the manipulation was not experienced differently for people with high vs. low narcissism.
correctly recalled their exact percentile score. These results suggest that feedback manipulation was administered effectively.

**Narcissism, acceptance, and feedback predicting attribution of responsibility.**

To test whether the acceptance manipulation was effective at reducing self-serving bias for people with high levels of narcissism (Hypothesis 2), multilevel multiple regressions were conducted with narcissism, acceptance condition, and feedback condition as predictors of attribution of responsibility. There was a main effect of relationship length, indicating that people who were in longer relationships tended to take less personal responsibility for the task outcome (see Table 5, left column). There was also a significant Narcissism x Feedback Condition two-way interaction predicting attribution of responsibility, suggesting that the relation between narcissism and attribution of responsibility depended on whether people received success or failure feedback. However, the Narcissism x Acceptance Condition x Feedback Condition three-way interaction was not statistically significant. These results suggest that the effects of narcissism and feedback condition on attribution of responsibility did not differ for participants in the acceptance or control conditions.

---

11 For participants in the failure condition, the narcissism scores did not significantly differ for people who recalled their percentile score correctly ($M = 16.87, SD = 6.32$) and people who recalled their percentile score incorrectly ($M = 18.31, SD = 6.70$), $t(106) = -1.03, p = .305$. The lower recall scores in the failure condition may be due to the wording of the feedback, specifically the repetition of the percentile in the success condition. Participants in the success condition were told that they scored in the 93rd percentile and they performed better than 93% of couples, whereas participants in the failure condition were told that they scored in the 31st percentile and they performed worse than 69% of couples.
The non-significant three-way interaction term and the other interaction terms that included the acceptance condition were dropped from the model. This trimmed model still revealed a significant Narcissism x Feedback Condition two-way interaction predicting attribution of responsibility (see Figure 7), $b = .05$, $p = .025$. In the failure condition, there was no relation between narcissism and attribution of responsibility, $p = .607$. However, in the success condition, there was a positive relation between narcissism and taking personal responsibility for the outcome, $b = .08$, $p = .008$. In other words, people with high narcissism were more likely to claim responsibility for a success, whereas people with low narcissism were more likely to share credit with their romantic partner (or give their partner more credit for the success). Contrary to predictions, however, the self-serving bias effect was not decreased by the acceptance manipulation.

**Narcissism, acceptance, and feedback predicting love for partner.** People with high (vs. low) narcissism were expected to report less love for their romantic partners, particularly after failure feedback, and it was predicted that the acceptance condition would reduce this difference in love for one’s partner (Hypothesis 3). To test this hypothesis, multilevel multiple regression analyses were conducted with narcissism, acceptance condition, and feedback condition as predictors of participants’ love for their romantic partner. The results indicated a significant main effect of gender, indicating that women tended to report greater love for their romantic partners compared to men (see Table 5, middle column). However, the Narcissism x Acceptance Condition x Feedback
Condition three-way interaction was not statistically significant, and there were no other significant effects. These results do not support Hypothesis 3.

**Narcissism, acceptance, and feedback predicting perceived partner love.**

High (vs. low) narcissism scores were predicted to be related to lower reports of perceived partner love, particularly in the failure condition, and the acceptance manipulation was expected to decrease the difference in perceived partner love scores for people with high and low levels of narcissism. Multilevel multiple regression analyses were conducted with narcissism, acceptance condition, and feedback condition as predictors of participants’ beliefs about how much their partner loves them (i.e., perceived partner love). There was a marginally significant main effect for self-esteem (see Table 5, right column). People with higher (vs. lower) self-esteem tended to report greater perceived partner love. The Narcissism x Feedback Condition two-way interaction was also marginally significant. However, the Narcissism x Acceptance Condition x Feedback Condition three-way interaction did not significantly predict perceived partner love. There were no other significant effects.

The interaction terms that included the acceptance condition were dropped from the model. Analyses of the trimmed model still revealed a marginally significant Narcissism x Feedback Condition two-way interaction predicting perceived partner love (see Figure 8). Simple slopes analyses were conducted to test the nature of this interaction. In the failure condition, there was a marginally significant negative relation between narcissism and perceived partner love, $b = -.02$, $p = .091$. In other words, people
with high (vs. low) levels of narcissism tended to report that their romantic partners loved them less after they received failure feedback. In the success condition, there was no relation between narcissism and perceived partner love, \( p = .487 \). The predicted negative relation between narcissism and perceived partner love was present; however, the effect was weaker than expected. Furthermore, contrary to Hypothesis 3, the acceptance manipulation had no effect on these findings.
<table>
<thead>
<tr>
<th></th>
<th>Attribution of Responsibility</th>
<th>Love for Partner</th>
<th>Perceived Partner Love</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>SE</td>
<td>t</td>
</tr>
<tr>
<td>Intercept</td>
<td>5.33</td>
<td>.13</td>
<td>41.11**</td>
</tr>
<tr>
<td>Self-esteem</td>
<td>0.02</td>
<td>.17</td>
<td>0.11</td>
</tr>
<tr>
<td>Relationship Length</td>
<td>-0.01</td>
<td>.01</td>
<td>-2.00*</td>
</tr>
<tr>
<td>Gender</td>
<td>-0.08</td>
<td>.15</td>
<td>-0.51</td>
</tr>
<tr>
<td>Acceptance Condition</td>
<td>0.03</td>
<td>.13</td>
<td>0.21</td>
</tr>
<tr>
<td>Feedback Condition</td>
<td>-0.00</td>
<td>.13</td>
<td>-0.02</td>
</tr>
<tr>
<td>Narcissism</td>
<td>0.03</td>
<td>.02</td>
<td>1.31</td>
</tr>
<tr>
<td>Acceptance x Narcissism</td>
<td>0.01</td>
<td>.02</td>
<td>0.47</td>
</tr>
<tr>
<td>Feedback x Narcissism</td>
<td>0.04</td>
<td>.02</td>
<td>2.11*</td>
</tr>
<tr>
<td>Acceptance x Feedback</td>
<td>0.15</td>
<td>.13</td>
<td>1.18</td>
</tr>
<tr>
<td>Acceptance x Feedback x Narcissism</td>
<td>0.01</td>
<td>.02</td>
<td>0.31</td>
</tr>
</tbody>
</table>

Note. ** p < .01, * p < .05, † p < .10
Figure 7. Narcissism and feedback type predicting attribution of responsibility.

Figure 8. Narcissism and feedback type predicting perceived partner love.
Ancillary analyses. Ancillary analyses were conducted to determine whether the influence of the acceptance manipulation on self-enhancement (and relationship-enhancement) for people with high and low levels of narcissism depended on a moderating variable. In particular, the focus was on potential moderating variables that were expected to be related to people’s feelings of acceptance and belonging: need to belong, relationship commitment, and recent relationship quality.

Need to belong. Study 1 analyses revealed that need to belong was an important moderator of the relation between narcissism and acceptance as predictors of self-enhancement. Ancillary analyses were conducted to see if need to belong also functioned as a moderator in Study 2. It was hypothesized that the acceptance manipulation may have reduced self-serving bias for people with high narcissism and low need to belong, but increased the effect for people with high narcissism and high need to belong. However, in contrast to Study 1, need to belong did not significantly moderate any of the reported results. This suggests that a person’s need to belong may be more relevant to self-enhancement in individual contexts rather than in interpersonal contexts. This issue will be addressed further in the General Discussion.

Commitment. The risk regulation model proposes that people only risk becoming attached to their relationship partners when they feel loved and secure in their relationship (e.g., Murray, Holmes, & Collins, 2006). Following from this, a person’s level of commitment to their relationship and romantic partner is a reflection of how secure and accepted they feel in their relationship. Higher commitment reflects an
overall sense of relationship-specific acceptance and belonging. It was predicted that that higher relationship commitment would buffer the effects of negative feedback and promote relationship-enhancing responses.

*Narcissism, feedback, acceptance, and commitment predicting attribution of responsibility.* Multilevel multiple regression analyses were used to examine a four-way interaction among narcissism, acceptance condition, feedback condition, and commitment as predictors of attribution of responsibility. Analyses revealed a significant Narcissism x Feedback two-way interaction (see Table 6, left column). In addition, there was also a significant Acceptance Condition x Feedback Condition x Commitment three-way interaction as well as a significant Feedback Condition x Narcissism x Commitment three-way interaction predicting attribution of responsibility. However, the Narcissism x Acceptance Condition x Feedback Condition x Commitment four-way interaction was not significant for attribution of responsibility.

A trimmed model was run dropping the non-significant four-way interaction as well as the other interaction terms that included the acceptance condition. Analysis of the trimmed model revealed a significant main effect of relationship length predicting attribution of responsibility; people in longer romantic relationships tended to take less personal responsibility for the test outcome, $b = -.02, p = .037$. There was a significant Narcissism x Feedback two-way interaction, but this was qualified by a marginally significant Narcissism x Feedback Condition x Commitment three-way interaction.
predicting attribution of responsibility, $b = .05$, $p = .029$, and $b = -.04$, $p = .063$, respectively.

Simple slope analyses were conducted to test the Narcissism x Feedback two-way interaction separately for people with high vs. low relationship commitment. For people with low commitment, there was a significant Narcissism x Feedback Condition two-way interaction predicting attribution of responsibility (see Figure 9a), $b = .09$, $p = .006$. For people with low commitment in the failure condition, simple slope analyses revealed no relation between narcissism and attribution of responsibility, $p = .294$. In contrast, for people with low commitment in the success condition, there was a significant, positive relation between narcissism and attribution of responsibility, $b = .12$, $p = .002$. However, for people with high commitment, the Narcissism x Feedback Condition two-way interaction was not significant (see Figure 9b), $p = .851$. This finding suggests that, after a success, people with high narcissism display a self-serving bias at the expense of the romantic partner when they have low relationship commitment, but not when they have high relationship commitment.
Table 6. Multilevel Multiple Regression Results for Narcissism, Acceptance, Feedback, and Commitment Predicting Outcomes

<table>
<thead>
<tr>
<th></th>
<th>Attribution of Responsibility</th>
<th>Love</th>
<th>Perceived Love</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(b)</td>
<td>(SE)</td>
<td>(t)</td>
</tr>
<tr>
<td>Intercept</td>
<td>5.35</td>
<td>.13</td>
<td>40.18**</td>
</tr>
<tr>
<td>Self-esteem</td>
<td>-0.06</td>
<td>.18</td>
<td>-0.35</td>
</tr>
<tr>
<td>Relationship Length</td>
<td>-0.01</td>
<td>.01</td>
<td>-1.56</td>
</tr>
<tr>
<td>Gender</td>
<td>-0.02</td>
<td>.15</td>
<td>-0.13</td>
</tr>
<tr>
<td>Acceptance Condition</td>
<td>0.05</td>
<td>.13</td>
<td>0.36</td>
</tr>
<tr>
<td>Feedback Condition</td>
<td>-0.04</td>
<td>.13</td>
<td>-0.27</td>
</tr>
<tr>
<td>Commitment</td>
<td>-0.07</td>
<td>.14</td>
<td>-0.50</td>
</tr>
<tr>
<td>Narcissism</td>
<td>0.03</td>
<td>.02</td>
<td>1.26</td>
</tr>
<tr>
<td>Acceptance x Narcissism</td>
<td>-0.00</td>
<td>.02</td>
<td>-0.21</td>
</tr>
<tr>
<td>Feedback x Narcissism</td>
<td>0.05</td>
<td>.02</td>
<td>2.30*</td>
</tr>
<tr>
<td>Acceptance x Feedback</td>
<td>0.11</td>
<td>.13</td>
<td>0.82</td>
</tr>
<tr>
<td>Acceptance x Commitment</td>
<td>-0.19</td>
<td>.14</td>
<td>-1.38</td>
</tr>
<tr>
<td>Feedback x Commitment</td>
<td>-0.07</td>
<td>.14</td>
<td>-0.48</td>
</tr>
<tr>
<td>Narcissism x Commitment</td>
<td>0.00</td>
<td>.02</td>
<td>0.03</td>
</tr>
<tr>
<td>Acceptance x Feedback x Narcissism</td>
<td>0.01</td>
<td>.02</td>
<td>.41</td>
</tr>
<tr>
<td>Acceptance x Feedback x Commitment</td>
<td>0.31</td>
<td>.14</td>
<td>2.17*</td>
</tr>
<tr>
<td>Acceptance x Narcissism x Commitment</td>
<td>0.03</td>
<td>.02</td>
<td>1.38</td>
</tr>
<tr>
<td>Feedback x Narcissism x Commitment</td>
<td>-0.05</td>
<td>.02</td>
<td>-2.15*</td>
</tr>
<tr>
<td>Acceptance x Feedback x Narcissism x Commitment</td>
<td>-0.01</td>
<td>.02</td>
<td>-0.59</td>
</tr>
</tbody>
</table>

Note. ** \(p < .01\), * \(p < .05\), † \(p < .10\)
Figure 9. Narcissism, feedback type, and commitment predicting attribution of responsibility.
Narcissism, feedback, acceptance, and commitment predicting love for romantic partner. Multilevel multiple regression analyses were used to examine a four-way interaction among narcissism, acceptance condition, feedback condition, and commitment as predictors of participants’ love for their romantic partner. The analyses indicated a significant main effect of commitment, indicating that people with higher relationship commitment reported greater love for their romantic partner. There was also a marginally significant main effect of feedback; people who received success (vs. failure) feedback reported more love for their partner. The results revealed a significant Narcissism x Feedback Condition x Acceptance Condition x Commitment four-way interaction predicting love for one’s romantic partner (see Table 6, middle column).

Follow-up analyses were conducted to test the relation between narcissism, feedback, and acceptance separately for people with high and low levels of relationship commitment. For people with low commitment, the Narcissism x Feedback Condition x Acceptance Condition three-way interaction was significant, $b = -.03$, $p = .004$. This three-way interaction was not significant for people with high commitment, $p = .915$. People with high commitment’s level of narcissism and feedback condition was unrelated to their love for their romantic partner, and this did not vary for participants in the acceptance and control conditions.

Additional analyses were conducted to explore the relation between narcissism and feedback for people with low commitment in the acceptance and control conditions. For people with low commitment in the control condition, there was a significant
Narcissism x Feedback Condition two-way interaction (see Figure 10a), $b = .05, p = .001$.

Specifically, in the failure condition, there was a marginally significant negative relation between narcissism and love, $b = -.03, p = .090$. In the success condition, narcissism was a significant predictor of love for one’s romantic partner, $b = .06, p = .002$. In other words, for people with low relationship commitment in the control condition, high narcissism was associated with greater love for one’s romantic partner after success feedback, but less love for one’s romantic partner after failure feedback.

For people with low commitment in the acceptance condition, people who received success (vs. failure) feedback reported greater love for their romantic partner, $b = .17, p = .046$. However, the Narcissism x Feedback Condition two-way interaction was not significant (see Figure 10b), $p = .605$. For people with low commitment in the acceptance condition, the relation between narcissism and love did not differ in the success and failure conditions.

_Narcissism, feedback, acceptance, and commitment predicting perceived partner love._ Multilevel multiple regression analyses were used to examine the four-way interaction among narcissism, acceptance, feedback, and commitment for perceived partner love. The analyses indicated a significant main effect of commitment, indicating that people with higher relationship commitment tended to report that their partners had greater love for them (see Table 6, right column). The Narcissism x Acceptance Condition x Feedback Condition x Commitment four-way interaction was not significant for perceived partner love, and there were no other significant effects.
Figure 10. Narcissism, feedback type, acceptance condition, and commitment predicting love.

(a) Low Commitment/Control

(b) Low Commitment/Acceptance

(c) High Commitment/Control

(d) High Commitment/Acceptance

- Black: Failure
- Blue: Success
**Relationship quality.** The ancillary analyses also explored whether recent relationship quality moderated the results. Relationship quality was assessed by asking participants to report how well their relationship had been going over the last week compared to usual. People may feel more accepted by the relationship partner when the relationship is going better than usual. Therefore, relationship-enhancing responses were expected to be more apparent when relationship quality was high, and self-enhancing responses were expected when relationship quality was low.

**Narcissism, feedback, acceptance, and relationship quality predicting attribution of responsibility.** Multilevel multiple regression analyses were conducted to examine the four-way interaction among narcissism, acceptance condition, feedback condition, and relationship quality entered as predictors of attribution of responsibility (see Table 8, left column). There was a marginally significant main effect of relationship length on attribution of responsibility, $b = -.01, p = .065$. People in longer romantic relationships tended to take less personal responsibility for outcomes. In addition, the Narcissism x Feedback Condition x Acceptance Condition x Relationship Quality four-way interaction was statistically significant. For people with low relationship quality, the Narcissism x Feedback Condition x Acceptance Condition three-way interaction was statistically significant, $b = .07, p = .024$. However, the three-way interaction was not significant for people with high relationship quality, $p = .315$.

The next set of analyses examined the relation between narcissism and feedback condition for people with low relationship quality in the control and acceptance
conditions. For people with low relationship quality in the control condition, the Narcissism x Feedback Condition two-way interaction was not significant (see Figure 11a), $p = .822$. In contrast, the Narcissism x Feedback Condition two-way interaction was significant for people with low relationship quality in the acceptance condition (see Figure 11b), $b = .15, p = .001$. More specifically, when people with low relationship quality in the acceptance condition received failure feedback, people with higher narcissism took significantly less personal responsibility for the test outcome, $b = -.23, p = .001$. However, when people with low relationship quality in the acceptance condition received success feedback, there was a non-significant, positive relation between narcissism and attribution of responsibility, $b = .07, p = .142$. In other words, when people who were in relationships that were going worse than usual were asked to think about a time when they felt accepted by their romantic partner, people with high (vs. low) narcissism tended to display a self-serving bias after receiving task feedback. Thinking about feeling accepted when the relationship was not going well seemed to exacerbate the self-serving bias for people with high narcissism.
Table 7. Multilevel Multiple Regression Results for Narcissism, Acceptance, Feedback, and Relationship Quality Predicting Outcomes

<table>
<thead>
<tr>
<th></th>
<th>Attribution of Responsibility</th>
<th>Love</th>
<th>Perceived Love</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(b)</td>
<td>(SE)</td>
<td>(t)</td>
</tr>
<tr>
<td>Intercept</td>
<td>5.29</td>
<td>.12</td>
<td>42.56**</td>
</tr>
<tr>
<td>Self-esteem</td>
<td>0.10</td>
<td>.17</td>
<td>0.58</td>
</tr>
<tr>
<td>Relationship Length</td>
<td>-0.01</td>
<td>.01</td>
<td>-1.86†</td>
</tr>
<tr>
<td>Gender</td>
<td>-0.11</td>
<td>.15</td>
<td>-0.68</td>
</tr>
<tr>
<td>Acceptance Condition</td>
<td>-0.01</td>
<td>.13</td>
<td>-0.07</td>
</tr>
<tr>
<td>Feedback Condition</td>
<td>0.06</td>
<td>.13</td>
<td>0.48</td>
</tr>
<tr>
<td>Relationship Quality</td>
<td>0.07</td>
<td>.11</td>
<td>0.62</td>
</tr>
<tr>
<td>Narcissism</td>
<td>0.02</td>
<td>.02</td>
<td>0.81</td>
</tr>
<tr>
<td>Acceptance x Narcissism</td>
<td>-0.00</td>
<td>.02</td>
<td>-0.14</td>
</tr>
<tr>
<td>Feedback x Narcissism</td>
<td>0.05</td>
<td>.02</td>
<td>2.63**</td>
</tr>
<tr>
<td>Acceptance x Feedback</td>
<td>0.21</td>
<td>.12</td>
<td>1.73†</td>
</tr>
<tr>
<td>Acceptance x Quality</td>
<td>-0.00</td>
<td>.11</td>
<td>-0.02</td>
</tr>
<tr>
<td>Feedback x Quality</td>
<td>-0.20</td>
<td>.11</td>
<td>-1.78†</td>
</tr>
<tr>
<td>Narcissism x Quality</td>
<td>0.02</td>
<td>.02</td>
<td>1.35</td>
</tr>
<tr>
<td>Acceptance x Feedback x Narcissism</td>
<td>0.02</td>
<td>.02</td>
<td>0.98</td>
</tr>
<tr>
<td>Acceptance x Feedback x Quality</td>
<td>-0.04</td>
<td>.11</td>
<td>-0.42</td>
</tr>
<tr>
<td>Acceptance x Narcissism x Quality</td>
<td>0.05</td>
<td>.02</td>
<td>3.00**</td>
</tr>
<tr>
<td>Feedback x Narcissism x Quality</td>
<td>-0.02</td>
<td>.02</td>
<td>-1.16</td>
</tr>
<tr>
<td>Acceptance x Feedback x Narcissism x Quality</td>
<td>-0.04</td>
<td>.02</td>
<td>-2.30*</td>
</tr>
</tbody>
</table>

Note. ** \(p < .01\), * \(p < .05\), † \(p < .10\)
Figure 11. Narcissism, feedback type, acceptance condition, and relationship quality predicting attribution of responsibility.
Narcissism, feedback, acceptance, and relationship quality predicting love for romantic partner. Multilevel multiple regression analyses were conducted to examine the four-way interaction among narcissism, acceptance condition, feedback condition, and relationship quality entered as predictors of love for romantic partner. There was a main effect of relationship quality (see Table 7, middle column). People who reported that their romantic relationship had been going better than usual during the last week tended to report greater love for their partner. There was also a marginally significant main effect of gender; women tended to report greater love for their romantic partner. There was also a significant Narcissism x Relationship Quality two-way interaction predicting love for partner. The Narcissism x Feedback Condition x Acceptance Condition x Relationship Quality four-way interaction was not a significant predictor of love for one’s romantic partner.

Narcissism, feedback, acceptance, and relationship quality predicting perceived partner love. Multilevel multiple regression analyses were also conducted with narcissism, acceptance condition, feedback condition, and relationship quality entered as predictors of perceived partner love. There was a significant main effect of self-esteem on perceived partner love, suggesting that people with higher self-esteem tended to report that their partners loved them more. There was a significant Narcissism x Feedback Condition x Acceptance Condition x Relationship Quality four-way interaction predicting perceived partner love (see Table 7, right column). Additional analyses were conducted to explore the relation between narcissism, feedback condition, and acceptance condition
separately for people with high and low relationship quality. The Narcissism x Feedback Condition x Acceptance Condition three-way interaction was significant for people with low relationship quality and marginally significant for people with high relationship quality, $b = .02, p = .033$, and $b = -.02, p = .069$, respectively.

Follow-up analyses were conducted to examine the relation between narcissism and feedback in the acceptance condition and the control condition, separately for people with low and high relationship quality. For people with low relationship quality in the control condition, the Narcissism x Feedback Condition two-way interaction was not significant (Figure 12a), $p = .378$. However, for people with low relationship quality in the acceptance condition, there was a significant Narcissism x Feedback Condition two-way interaction (Figure 12b), $b = .03, p = .031$. Specifically, narcissism was not a significant predictor of perceived partner love for people in the failure condition, $p = .351$. However, for people with low relationship quality in the acceptance condition who received success feedback, higher narcissism was significantly related to higher perceived partner love, $b = .05, p = .014$. Although the quality of their relationship had been worse than usual, after recalling a time when they felt accepted and receiving success feedback, people with high (vs. low) narcissism reported that their romantic partners loved them more.

For people with high relationship quality in the control condition, there was a significant Narcissism x Feedback Condition two-way interaction predicting perceived partner love (Figure 12c), $b = .04, p = .036$. Specifically, in the failure condition, there
was a significant, negative relation between narcissism and perceived partner love, $b = -0.05$, $p = .049$. Even though their romantic relationship had been going better than usual over the past week, people with high (vs. low) narcissism reported that their romantic partners loved them less after failure feedback. However, for people with high relationship quality in the control condition who received success feedback, there was no relation between narcissism and perceived partner love, $p = .397$. The Narcissism x Feedback Condition two-way interaction was not significant for people with high relationship quality in the acceptance condition (Figure 12d), $p = .736$. In other words, when people recalled a time that they felt accepted by their partner and their relationship had been going well recently, the relation between narcissism and perceived partner love did not differ based on whether they received success or failure feedback. These findings suggest that people with high (vs. low) narcissism’s perceptions of how much their partner loves them may be more influenced by situational factors, such as recent relationship quality and performance feedback.
Figure 12. Narcissism, feedback type, acceptance condition, and relationship quality predicting perceived partner love.
Study 2: Discussion

Study 2 examined the effect of activating acceptance on the extent to which people with high and low levels of narcissism engaged in self-enhancing and relationship-enhancing behaviors. On the attribution of responsibility measure, participants could self-enhance by taking personal responsibility for success and attributing failures to their romantic partner (i.e., self-serving bias). Participants could also share credit with romantic partners or enhance their partners by giving them more credit for successes and less responsibility for failures (i.e., relationship-enhancement). People with high narcissism tended to display a self-serving bias, primarily by taking more personal credit for success at the expense of their romantic partner. This emphasis on claiming credit for successes rather than avoiding failures is consistent with the high approach orientation and weak avoidance orientation of people with high narcissism (e.g., Foster & Trimm, 2008). Contrary to hypotheses, however, the acceptance manipulation did not reduce the self-serving bias.

Additional analyses found that the relation between self-serving bias and narcissism was driven by people with low relationship commitment. Specifically, people with low relationship commitment who also had high narcissism levels tended to take personal credit for successes. This researcher is unaware of any prior research that has examined the self-serving bias in romantic couples working on an interdependent task. Previous research by Campbell et al. (2000a) found that closeness did not moderate the relation between narcissism and self-serving bias; however, the participants in that study
were new acquaintances and closeness was manipulated using a closeness-induction procedure. The current work extends previous research by demonstrating that people with high narcissism may refrain from self-enhancing at the expense of their romantic partners if they are highly committed to the relationship.

The self-serving bias effect was also moderated by recent relationship quality. When relationship quality was low, recalling a time when they felt accepted led people with high narcissism to display a self-serving bias. It appears that recalling a time that their romantic partner made them feel accepted in the past while currently experiencing problems in their relationship may have been threatening to people with high narcissism, and the increased self-enhancement may be a defensive response to this threat.

The second component to Study 2 was to explore how narcissism, acceptance, and feedback relate to relationship functioning, specifically reported love for one’s romantic partner and perceived partner love. After failure feedback, people with high (vs. low) narcissism reported that their romantic partners loved them less. This effect was not found after success feedback, and it was not influenced by the acceptance manipulation. Furthermore, recent relationship quality moderated this effect. When people with low relationship quality in the acceptance condition received success feedback, people with high (vs. low) narcissism reported higher perceived partner regard. Also, when people with high relationship quality in the control condition received failure feedback, people with high (vs. low) narcissism reported lower perceived partner regard.
The study also found that commitment moderated the relation between narcissism, acceptance, and performance feedback on love for one’s romantic partner. For participants with low relationship commitment in the control condition, people with high (vs. low) narcissism reported more love for their partner after success feedback and less love for their partner after failure feedback. For people with low relationship commitment, the acceptance manipulation reduced the differences in reported love by participants with high and low narcissism. Overall, people with high narcissism’s reports of how much they love their romantic partner (and how much their romantic partner loves them) seems to be more malleable and more dependent upon situational factors. This suggests that people with high (vs. low) narcissism may be less secure in their romantic relationships, and they may be more sensitive to potential indicators of rejection or a lack of acceptance.

Although Study 2 found that some acceptance-related factors, namely relationship commitment and current relationship quality, predicted self-enhancement and relationship outcomes, the acceptance manipulation did not influence most of the study outcomes. One issue that may have impacted the effectiveness of the acceptance manipulation is that there may have been selection bias in the types of couples who participated in this study. Romantic couples who choose to participate in a research study on relationships may have higher quality, better functioning relationships compared to couples who do not participate. If this is the case, there is a possibility that the
observed effects would be stronger in a sample that included couples who did not knowingly self-select into a relationship study.
CHAPTER 6

GENERAL DISCUSSION

The purpose of the current research was to examine the effects of affirming acceptance on self-enhancement in people with high (vs. low) levels of narcissism. People with high narcissism display grandiose, overly positive self-beliefs, which may mask underlying insecurities about their social abilities and acceptance by others (e.g., Bosson et al., 2008). It was predicted that affirming acceptance would reduce defensive self-enhancement in people with high (vs. low) narcissism. This research question was explored within independent and interdependent contexts using several different self-enhancement strategies.

Study 1 demonstrated that the effect of the acceptance manipulation on the relation between narcissism and self-enhancement depended on people’s level of need to belong, an individual difference variable assessing desire for acceptance and concern about rejection. For people with low need to belong, recalling a time when they felt accepted led people with high (vs. low) narcissism to self-enhance less on trait ratings (i.e., better-than-average effect and actual-ideal discrepancies). In contrast, for people with high need to belong, exposure to the acceptance manipulation influenced people with high (vs. low) narcissism to self-enhance more. This increase in defensive self-enhancement would be more expected following a rejection rather than an acceptance.
manipulation, which suggests that recalling a time when they felt accepted may have been threatening for people with high narcissism and high need to belong.

Study 2 examined these self-enhancement processes in romantic couples. After working on an interdependent-outcomes task with their romantic partner, people with high (vs. low) narcissism tended to take more personal responsibility for successful task outcomes. This is consistent with past research that has found that people with high narcissism display a self-serving bias when working with new acquaintances on a task (e.g., Campbell et al., 2000a). Contrary to hypotheses, the acceptance manipulation had little impact on the extent to which members of romantic couples self-enhanced.

However, analyses revealed that the relation between narcissism and self-enhancement was moderated by two acceptance-related relationship variables, commitment and relationship quality. People with high (vs. low) narcissism displayed a self-serving bias at the expense of their romantic partners when they were low on commitment, but not when they were high on commitment. This research suggests that people with high narcissism may have greater flexibility in self-enhancement strategies than initial research suggests (e.g., Campbell et al., 2000a). People with high narcissism may be unwilling to forgo direct self-enhancement strategies when working with new acquaintances; however, when given the option of self-enhancing at the expense of their romantic partners, people with high narcissism may self-enhance less. This is consistent with research by Sedikides and colleagues that demonstrates that people select their self-enhancement strategies strategically (e.g., Horton & Sedikides, 2009).
In addition, when the current quality of people’s relationship was low and they were asked to recall a time when they felt accepted, people with high (vs. low) narcissism displayed a self-serving bias on attributions of responsibility. This effect suggests that the acceptance manipulation may have triggered a defensive response in people with high narcissism who were in romantic relationships that were going worse than usual. Study 2 also demonstrated people with high (vs. low) narcissism’s love for their romantic partner (and perceptions of how much their partner loves them) is influenced by recalling a time when they felt accepted, their level of relationship commitment, how well the relationship has been going the past week, and performance feedback. People with high narcissism’s feelings for their partner may be more fragile and more influenced by factors that signal a lack of acceptance.

**Theoretical and Practical Implications**

One of the goals of this research was to explore whether there is any empirical support for the mask model of narcissism, which posits that the outwardly confident, positive self-evaluations that people with high narcissism portray may be masking more fragile self-beliefs and underlying insecurities about acceptance (e.g., Bosson et al., 2008). The results of these studies suggest that people with high narcissism are not immune to relationship concerns, providing partial support for the mask model of narcissism. Although the relation between the variables was not as predicted, the self-enhancement processes of people with high narcissism were influenced by the acceptance manipulation as well as acceptance-related constructs, such as need to belong.
relationship commitment, and relationship quality. Interestingly, at times people with high narcissism appeared to respond defensively to the acceptance manipulation, as if the acceptance manipulation was experienced as a rejection threat. Foster and Campbell (2005) found a similar defensive response when they asked participants to list reasons that their romantic partner would be highly committed to them. After listing reasons why their partner would be committed, people with high (vs. low) narcissism reported greater relationship dysfunction. This issue warrants future research, because it suggests that narcissistic defensiveness may be partially activated by fragile feelings of acceptance and belonging.

The results of both studies highlight the complex, dynamic nature of the narcissistic self-regulation system. The current research also identified several important moderating variables that appear to act as psychological buffers and reduce the need to defensively self-enhance in people with high narcissism: low need to belong, high relationship commitment, and high relationship quality. It should be noted that need to belong did not moderate the self-serving bias and relationship effects found in Study 2. One explanation for this finding is that need to belong may be more important in individual contexts (Study 1) than in interpersonal contexts (Study 2). A person’s need to belong is distinct from their actual level of belonging. In Study 1, participants were asked to rate themselves on traits compared to the average college student. This is a much more abstract comparison than rating themselves compared to their romantic partner (Study 2). In Study 2, the influence of more general concerns about belonging on
self-enhancement may have been overridden by relationship-specific felt security (i.e., commitment) and recent experiences in the relationship (i.e., relationship quality).

Although the acceptance manipulation was limited in its effectiveness at reducing self-serving bias, the results indicated that acceptance-related constructs (i.e., need to belong, relationship commitment, and recent relationship quality) moderated the relation between narcissism and self-enhancement (as well as relationship-enhancing responses). This suggests that the self-regulatory strategies used by people with high narcissism are sensitive to interpersonal or communal factors. Because of the critical role of moderating variables, acceptance affirmations cannot be recommended as a panacea to reduce defensive self-enhancement in people with high narcissism at this point. Nevertheless, it may be possible to implement acceptance affirmations, or perhaps extended acceptance-based interventions, without it triggering a defensive response in some people with high narcissism. Expanding upon research by Finkel and colleagues (2009) on communal activation, future research should design and test interventions to increase relationship commitment in people with high narcissism.

**Limitations and Future Directions**

One limitation of the current research is that narcissism is a multifaceted construct. Both experiments utilized the most common measure of trait narcissism (the Narcissistic Personality Inventory); however, a more finely-grained measure of different facets of the narcissism construct may have shed additional light on the findings. I attempted to look at different factor-structures reported in the literature (e.g., Ackerman,
Within the overarching construct of narcissism, some characteristics seem more adaptive (e.g., confident, outgoing), whereas other characteristics are more maladaptive (e.g., exploitative, entitled). The acceptance manipulation may be threatening to people with maladaptive forms of narcissism, but beneficial for people with adaptive narcissistic traits. In addition, another promising area for future research is to examine whether self-enhancement strategies are different for people with maladaptive narcissism (compared to adaptive narcissism).

Another important issue to consider is whether the acceptance manipulation was experienced the same across all participants. Acceptance was activated by asking participants to think and write about a time when they felt accepted and included by others. Because the acceptance manipulation was a recall task, there may be differences in the intensity or the nature of the acceptance experience. Future research should explore different methods of manipulating acceptance, such as informing participants that other participants wanted to work with them on a task (e.g., Twenge & Campbell, 2003) or using Cyberball (Williams, Cheung, & Choi, 2000).

Additionally, it is also necessary to consider potential limitations in the generalizability of the findings, particularly in terms of extending the research to different age groups and cultures. In both samples, the participants were predominantly White.
U.S. college students. Previous research has found that reported narcissism scores decrease with age, are higher for people who live in individualistic (vs. collectivistic) cultures, and vary slightly across ethnicities (i.e., narcissism scores were higher in Black and Hispanic participants compared to White and Asian participants; Foster et al., 2003). This suggests that the participants in the current research may have a higher average narcissism level than may be found in a more diverse sample; however, future research should examine whether the relation between narcissism, acceptance, and self-enhancement holds across different samples. An interesting area of future research would be to explore how different types of narcissism, such as communal narcissism (i.e., enhancing communal aspects of the self; Gebauer, Sedikides, Verplanken, & Maio, 2012) or collective narcissism (i.e., enhancing one’s in-group; Golec de Zavala, Cichocka, Eidelson, & Jayawickreme, 2009), relate to self- and relationship-enhancing behaviors in different cultures.

There is also currently a debate in the literature about whether self-enhancement motivations are universal. Some researchers argue that collectivistic cultures place a greater value on modesty and on placing the needs of the family or group ahead of one’s own needs (e.g., Heine & Hamamura, 2007), whereas others propose that cross-cultural variations in self-enhancement are due to differences in the attributes and traits that are most relevant to the self, not to differences in the motivation to self-enhance (Sedikides, Gaertner, & Toguchi, 2003). Research in Western cultures has found that people with high (vs. low) narcissism tend to self-enhance in less socially acceptable ways, such as
boasting and showing off (Campbell et al., 2000a). Future research should explore cultural differences in self-enhancement strategies, particularly whether people with high narcissism use more indirect self-enhancement strategies in collectivistic cultures than they do in individualistic cultures.

Finally, in Study 2, the majority of romantic couples in the sample were in dating relationships. People with high narcissism displayed a self-serving bias in the control condition, but this effect was primarily driven by people who were less committed to their relationships and who were experiencing poorer relationship quality recently. Although some previous research has found that risk-regulation processes function the same in dating and marital relationships (Murray, Rose, Bellavia, Holmes, Kusche, 2002), future research should examine whether these self- and relationship-enhancing processes function the same way in married couples, who are presumably in more committed relationships.

Much of the research on narcissism focuses on how people with high narcissism respond defensively to threats (e.g., Bushman & Baumeister, 1998; Horton & Sedikides, 2009; Kernis & Sun, 1994), but less attention is given to understanding how people with high narcissism respond to acceptance (e.g., Finkel et al., 2009; Twenge & Campbell, 2003). This is some of the first research that looks at how acceptance manipulations influence defensive self-enhancement in people with high narcissism, and these issues were examined in individual and interdependent contexts. This research contributes to the growing body of literature on narcissistic self-regulatory processes.
APPENDIX A

STUDY 1 MATERIALS
Narcissism Personality Inventory  
(Raskin & Hall, 1979)

This inventory consists of a number of pairs of statements with which you may or may not identify.

Consider this example:
A. I like having authority over people
B. I don’t mind following orders

Which of these two statements is closer to your own feelings about yourself? If you identify more with “liking to have authority over people” than with “not minding following orders”, then you would choose option A.

You may identify with both A and B. In this case you should choose the statement which seems closer to yourself. Or, if you do not identify with either statement, select the one which is least objectionable or remote. In other words, read each pair of statements and then choose the one that is closer to your own feelings. Indicate your answer by writing the letter (A or B) in the space provided to the right of each item. Please do not skip any items.

1. A. I have a natural talent for influencing people.
   B. I am not good at influencing people.

2. A. Modesty doesn’t become me.
   B. I am essentially a modest person.

3. A. I would do almost anything on a dare.
   B. I tend to be a fairly cautious person.

4. A. When people compliment me I sometimes get embarrassed.
   B. I know that I am good because everybody keeps telling me so.

5. A. The thought of ruling the world frightens the hell out of me.
   B. If I ruled the world it would be a better place.

6. A. I can usually talk my way out of anything.
   B. I try to accept the consequences of my behavior.

7. A. I prefer to blend in with the crowd.
   B. I like to be the center of attention.
8. A. I will be a success.
   B. I am not too concerned about success.

9. A. I am no better or worse than most people.
   B. I think I am a special person.

10. A. I am not sure if I would make a good leader.
    B. I see myself as a good leader.

11. A. I am assertive.
    B. I wish I were more assertive.

12. A. I like to have authority over other people.
    B. I don’t mind following orders.

13. A. I find it easy to manipulate people.
    B. I don’t like it when I find myself manipulating people.

14. A. I insist upon getting the respect that is due me.
    B. I usually get the respect that I deserve.

15. A. I don’t particularly like to show off my body.
    B. I like to show off my body.

16. A. I can read people like a book.
    B. People are sometimes hard to understand.

17. A. If I feel competent I am willing to take responsibility for making decisions.
    B. I like to take responsibility for making decisions.

18. A. I just want to be reasonably happy.
    B. I want to amount to something in the eyes of the world.

19. A. My body is nothing special.
    B. I like to look at my body.

20. A. I try not to be a show off.
    B. I will usually show off if I get the chance.

21. A. I always know what I am doing.
    B. Sometimes I am not sure of what I am doing.
22. A. I sometimes depend on people to get things done.
   B. I rarely depend on anyone else to get things done.

23. A. Sometimes I tell good stories.
    B. Everybody likes to hear my stories.

24. A. I expect a great deal from other people.
    B. I like to do things for other people.

25. A. I will never be satisfied until I get all that I deserve.
    B. I take my satisfactions as they come.

26. A. Compliments embarrass me.
    B. I like to be complimented.

27. A. I have a strong will to power.
    B. Power for its own sake doesn’t interest me.

28. A. I don’t care about new fads and fashions.
    B. I like to start new fads and fashions.

29. A. I like to look at myself in the mirror.
    B. I am not particularly interested in looking at myself in the mirror.

30. A. I really like to be the center of attention.
    B. It makes me uncomfortable to be the center of attention.

31. A. I can live my life in any way I want to.
    B. People can’t always live their lives in terms of what they want.

32. A. Being an authority doesn’t mean that much to me.
    B. People always seem to recognize my authority.

33. A. I would prefer to be a leader.
    B. It makes little difference to me whether I am a leader or not.

34. A. I am going to be a great person.
    B. I hope I am going to be successful.

35. A. People sometimes believe what I tell them.
    B. I can make anybody believe anything I want them to.
36. A. I am a born leader.
   B. Leadership is a quality that takes a long time to develop.

37. A. I wish somebody would someday write my biography.
    B. I don’t like people to pry into my life for any reason.

38. A. I get upset when people don’t notice how I look when I go out in public.
    B. I don’t mind blending into the crowd when I go out in public.

39. A. I am more capable than other people.
    B. There is a lot that I can learn from other people.

40. A. I am much like everybody else.
    B. I am an extraordinary person.
Rosenberg Self-Esteem Scale  
(Rosenberg, 1965)

The next measure is a global measure of your feelings about yourself. Please answer the next ten items using the following scale.

1. I feel that I am a person of worth, at least on an equal basis with others.
2. I feel that I have a number of good qualities.
3. All in all, I am inclined to feel that I am a failure.
4. I am able to do things as well as most other people.
5. I feel I do not have much to be proud of.
6. I take a positive attitude toward myself.
7. On the whole, I am satisfied with myself.
8. I wish I could have more respect for myself.
9. At times I feel that I am useless.
10. At times I think I am no good at all.
Need to Belong Scale  
(NBS; Leary, Kelly, Cottrell, & Schreindorfer, 2012)

Please evaluate how much you agree or disagree with the ten statements below using the following scale:

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disagree very much</td>
<td></td>
<td></td>
<td>Neither agree nor disagree</td>
<td></td>
<td></td>
<td>Agree very much</td>
</tr>
</tbody>
</table>

1. If other people don’t seem to accept me, I don’t let it bother me.
2. I try hard not to do things that will make other people avoid or reject me.
3. I seldom worry about whether other people care about me.
4. I need to feel that there are other people I can turn to in times of need.
5. I want other people to accept me.
6. I do not like being alone.
7. Being apart from my friends for long periods of time does not bother me.
8. I have a strong “need to belong.”
9. It bothers me a great deal when I am not included in other people’s plans.
10. My feelings are easily hurt when I feel that others do not accept me.
Emotional Stability
(from the Ten Item Personality Inventory, TIPI; Gosling, Rentfrow, & Swann, 2003)

Here are a number of personality traits that may or may not apply to you. Please choose a number next to each statement to indicate the extent to which you agree or disagree with that statement. You should rate the extent to which the pair of traits applies to you, even if one characteristic applies more strongly than the other.

1. Anxious, easily upset
2. Calm, emotionally stable

Demographics

1. What is your date of birth?
   month _____  day _____ year _____

2. What is your sex? (select one)
   1. male    2. female

3. What is your year in school? (select one)
   1. first year    2. sophomore    3. junior    4. senior    5. other

4. What is your ethnicity? (Indicate the group with which you most closely identify.)
   1. African American, Black, African or Carribean
   2. Asian American, Asian, Pacific Islander
   3. European American, Anglo, Caucasian
   4. Hispanic American, Lantino, Chicano
   5. Native American, American Indian
   6. Bi-racial, Multi-racial
Experimental Manipulations

Acceptance Affirmation Condition

Please think about a time when another person made you feel like you were accepted and that you belonged. It might have been a time when someone acted caring toward you or helped you when you needed help. Take some time and remember an event that was important and pleasurable for you. Please write a thorough description of the event and how you felt.

Intelligence Affirmation Condition

Please think about a time when you performed well in an academic setting. It might have been a time when you got an A on an exam, when you received a good grade on an important assignment or wrote a great paper. Take some time and remember an event that was important and pleasurable for you. Please write a thorough description of the event and how you felt.

Control Condition

Please think about the last movie that you watched. Please provide (1) the title of the movie, (2) a brief summary of what happened in the movie and (3) how much you liked or disliked the movie. Do not worry very much about particular details. Take some time and remember the last movie that you watched. Please write a basic description of the movie and how you felt.
Manipulation Check

Please indicate how the event you just recalled makes you feel right now.

1 2 3 4 5 6 7
Not at all Very

1. How valued did recalling the event make you feel?
2. How accepted did recalling the event make you feel?
3. How included did recalling the event make you feel?
4. How rejected did recalling the event make you feel?
5. How smart did recalling the event make you feel?
6. How successful did recalling the event make you feel?

Post-Manipulation Mood

Please indicate how the event you just recalled makes you feel right now.

1 2 3 4 5 6 7
Not at all Very

1. How happy did recalling the event make you feel?
2. How depressed did recalling the event make you feel?
3. How content did recalling the event make you feel?
4. How sad did recalling the event make you feel?
Trait Ratings

Participants were asked to provide actual trait ratings and ideal trait ratings for all 20 traits.

**Instructions and Response Scale for Actual Trait Ratings:**

Please rate how well the following trait describes you compared to the average college student.

1 2 3 4 5 6 7 8 9
much less than the average college student

**Instructions and Response Scale for Ideal Trait Ratings:**

Please rate how well the following trait would *ideally* describe you compared to the average college student.

1 2 3 4 5 6 7 8 9
much less than the average college student

**Trait Stimuli:**

clumsy  competent  impatient  supportive
disorganized  smart  unforgiving  affectionate
irrational  athletic  distant  friendly
foolish  creative  stubborn  generous
lazy  assertive  critical  sympathetic
Unrealistic Optimism
(adapted from Weinstein, 1980)

Compared to the average college student—same sex as you—what do you think are the chances that the following events will happen to you? The choices range from much less than average, through average, to much more than average.

1. Like postgraduation job
2. Owning your own home
3. Graduating in top third of class
4. Not ill all winter
5. Living past 80
6. Divorced a few years after married
7. Heart attack before age 40
8. Being fired from a job
9. Car turns out to be a lemon
10. Victim of burglary
APPENDIX B

STUDY 2 MATERIALS
7-Item Commitment Measure  
(Rusbult, Martz, & Agnew, 1998)

Please rate how YOU feel about each of the following statements regarding your romantic relationship. Based on the scale provided, please select the number that best corresponds to your choice for each of the questions below.

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do Not Agree</td>
<td>Agree</td>
<td>Somewhat</td>
<td>Agree</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agree at All</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. I want our relationship to last for a very long time.
2. I am committed to maintaining my relationship with my partner.
3. I would not feel very upset if our relationship were to end in the near future.
4. It is likely that I will date someone other than my partner within the next year.
5. I feel very attached to our relationship- very strongly linked to my partner.
6. I want our relationship to last forever.
7. I am oriented toward the long-term future of my relationship (for example, I imagine being with my partner several years from now).
Demographic Questions and Relationship Characteristics

1. What is your date of birth? month _____  day _____ year _____

2. What is your sex? (select one)
   1. male     2. female

3. What is your year in school? (select one)
   1. first year     2. sophomore     3. junior     4. senior     5. other

4. What is your ethnicity? (Indicate the group with which you most closely identify.)
   1. African American, Black, African or Carribean
   2. Asian American, Asian, Pacific Islander
   3. European American, Anglo, Caucasian
   4. Hispanic American, Lantino, Chicano
   5. Native American, American Indian
   6. Bi-racial, Multi-racial

5. In the space below, please indicate the number of YEARS you have been dating your current romantic partner. For example, if you have been dating for 5 years and 6 months, you would indicate “5” years in the space below.
   ____________

6. In the space below, please indicate the number of MONTHS you have been dating your romantic partner. For example, if you have been dating for 5 years and 6 months, you would indicate “6” months in the space below.
   ____________

7. Is your current romantic relationship monogamous? (Select one)
   1. Yes     2. No

8. Is your current romantic relationship a long-distance relationship? (Select one)
   1. Yes     2. No
9. Are you and your romantic partner: (Select one)

1. dating and not living together
2. dating and living together
3. married and living together

10. How often do you see your romantic partner?

1 2 3 4 5 6 7
Not at All the Time
All

11. How often do you talk to your romantic partner?

1 2 3 4 5 6 7
Not at All the Time
All

12. Please report how your relationship has been going for the past week.

1 2 3 4 5 6 7
Much Better than
Worse than Usual
Usual
Creativity Task Instructions
(adapted from Sedikides, Campbell, Reeder, & Elliot, 1998)

Instructions to participants:

The next part of this study is the Lange-Elliot Creativity Test. We are interested in learning about the effects of brainstorming on the creativity of dyads. Brainstorming involves coming up with as many uses for an object as you can. Reliable data has already been gathered on this test for 130 students at Loyola last semester, and more data are needed to add to our knowledge. After you finish the brainstorming tasks, you will receive normative performance feedback.

This creativity test will be carried out in two sections. In each section, you and your partner will be given five minutes to generate as many uses as possible for an object. Write each idea on a separate piece of paper. Please list as many conceptually distinct uses as possible for the object. The total number of non-overlapping uses generated by you and your partner will be added together to create an overall creativity test score for the two of you. Because you are in the control condition, you and your partner will complete the brainstorming task separately rather than in a group. However, your responses will still be combined to calculate your total creativity score.

Experimenter escorts one of the participants to a different room, and then both participants begin the first brainstorming task.

Round 1: Generate as many uses as you can for a brick.

After five minutes, experimenter has the participants place the slips of paper into a covered box. Then participants are instructed to begin the next round.

Round 2: Generate as many uses as you can for a candle.

After five minutes, the experimenter collects the second batch of responses. Experimenter instructs participants to complete a survey packet:

We are finished with the brainstorming task. I’m going to go calculate your combined score for the creativity task. In the meantime, please complete these additional surveys.
Experimental Manipulations

Acceptance Condition

Please think of a time when you felt intensely accepted, valued, and included by your romantic partner. It might have been a time when your partner was caring to you, when your partner helped you when you needed him/her, or a time when your partner kept an important promise he/she made to you. Take some time and remember an event that was important and pleasurable for you. Write a description of this event and how you felt at the time of the event.

Control Condition

Please think of the last movie you saw with your romantic partner. Please provide (1) the title of the movie, (2) a brief summary of what happened in the movie, and (3) how much you liked or disliked the movie. Take some time and remember the last movie that you watched with your romantic partner. Write a description of this event and how you felt at the time of the event.
Acceptance Manipulation Check

Please indicate how the event you just recalled makes you feel right now.

1 2 3 4 5 6 7
Not at all Very

1. How excluded did recalling the event make you feel?
2. How accepted did recalling the event make you feel?
3. How included did recalling the event make you feel?
4. How rejected did recalling the event make you feel?

Post-Manipulation Mood

Please indicate how the event you just recalled makes you feel right now.

1 2 3 4 5 6 7
Not at all Very

1. How happy did recalling the event make you feel?
2. How depressed did recalling the event make you feel?
3. How content did recalling the event make you feel?
4. How sad did recalling the event make you feel?
**Feedback Manipulation**

**Success Condition**

Your total score on the Lange-Elliot Creativity Task was calculated to be at the 93rd percentile. This means that you and your partner’s creativity score was better than 93% of the couples used in our normative reference sample. You did well.

**Failure Condition**

Your total score on the Lange-Elliot Creativity Task was calculated to be at the 31st percentile. This means that you and your partner’s creativity score was worse than 69% of the couples used in our normative reference sample. You did poorly.
Attribution of Responsibility  
(adapted from Sedikides, Campbell, Reeder, & Elliot, 1998)

Because the Lange–Elliot Creativity Test was based on pooled scores (yours and your partner’s scores were combined) we are unable to determine which of you was most responsible for the overall positive or negative results obtained by the pair. The following questions will assess your perception of how the creativity test went. Please respond honestly. Your answers will remain confidential.

1 2 3 4 5 6 7 8 9 10
Myself

The other participant

Who was most responsible for the outcome of the test?
Love for Partner
(adapted from Simpson, Rholes, Phillips, 1996)

Below are a number of different statements. Please read each statement and indicate how you feel RIGHT NOW on the scale provided.

1 2 3 4 5 6 7
Very little Very much

1. Right now, how much **closeness** do you feel toward your romantic partner or your relationship?

2. Right now, how much **love** do you feel toward your romantic partner or your relationship?

3. Right now, how much **commitment** do you feel toward your romantic partner or your relationship?

4. Right now, how much of an **emotional bond** do you feel toward your partner or you relationship?

Perceived Partner Love
(adapted from Simpson, Rholes, Phillips, 1996)

Below are a number of different statements. Please read each statement and indicate how you feel RIGHT NOW on the scale provided.

1 2 3 4 5 6 7
Very little Very much

1. Right now, how much **closeness** do you think YOUR PARTNER feels toward you or your relationship?

2. Right now, how much **love** do you think YOUR PARTNER feels toward you or your relationship?

3. Right now, how much **commitment** do you think YOUR PARTNER feels toward you or your relationship?

4. Right now, how much of an **emotional bond** do you think YOUR PARTNER feels toward you or your relationship?
Feedback Manipulation Check

How well did you think that both you and your partner did on the Lange-Elliot creativity test?

1 2 3 4 5 6 7
Not at all well Very well

What was your percentile score on the creativity task?

__________________


Twenge, J. M., Konrath, S., Foster, J. D., Campbell, W. K., & Bushman, B. J. (2008). Egos inflating over time: A cross-temporal meta-analysis of the narcissistic personality inventory. *Journal of Personality, 76*, 875-901.


VITA

Jennifer L. Smith graduated cum laude from Kenyon College, Gambier, OH, in 2003 with a Bachelor of Arts in Psychology. In 2010, Jennifer received a Master of Arts in Applied Social Psychology from Loyola University Chicago, Chicago, IL. She earned a Ph.D. in the same program from Loyola University Chicago in 2013.

After graduating from college, Jennifer worked as a researcher at Applied Research Associates (formerly Klein Associates, Inc.), a company specializing in naturalistic decision making and applied cognition. While at Loyola University Chicago, Jennifer served as a graduate research assistant (2007-2010) and taught lab courses on Social Psychology. She also held a graduate assistantship at the Loyola University Chicago Office of Research Services (2010-2012) where she worked as a compliance assistant for the Institutional Review Board. Jennifer was awarded the Arthur J. Schmitt Dissertation Fellowship in 2012.