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# Effect of Priming Attachment Styles on Gratitude in Close Relationships

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## MASTER'S THESIS

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Abstract

Individuals with enhanced gratitude have higher well-being, a greater capacity to trust, and more appreciation of others. Studies have found that people who show secure attachment also tend to be high in trait gratitude, however, a direct causal relationship has yet to be established. It was hypothesized that secure attachment priming would enhance state gratitude more than other attachment primes. Furthermore, it was predicted that securely attached individuals would have more positive affectivity than insecurely attached individuals, in general. To assess these questions, an experimental design was used to study the relationship between gratitude and attachment. State gratitude was measured by using an instrument to assess gratitude after the priming of attachment occurred. Specifically, participants were primed with one of the following: secure, insecure, or neutral memories through a writing exercise, with the experimental conditions designed to induce a secure or insecure attachment style. Results indicated that secure attachment prime resulted in significantly greater state gratitude than the insecure attachment prime. These findings suggest compelling possibilities for enhanced interpersonal relationship satisfaction.

*Keywords:* gratitude, attachment styles, trust, well-being, appreciation, life satisfaction, relationships

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**Effects of Priming Attachment Styles on Gratitude in Close Relationships**

Imagine living in a world where the possibilities for happiness, safeness, and security were unattainable. For most human beings, contentment is an accessible goal, but for others, it is a challenging journey marked by obstacles and failed attempts. When faced with difficulties, how do individuals cope with life's stressors in a way that is meaningful? It may be that the amount of value a person places on gratitude and close relationships potentially factors into better handling adversity. Although the answer to this question is different for each person, the desire to share our experiences with others is an intrinsic component of human life. Not only do individuals seek out relationships for basic social aspects, but more specifically, for comfort, belonging, and protection. The desire to form social attachments is innate, and the need for belongingness appears to assist in enhancing health, well-being, and adjustment (Baumeister & Leary, 1995). Relationships with others are an essential aspect of human nature, and the impact of social interactions on psychological functioning is clear. Indeed, relatedness is a fundamental psychological need, but some seem to recognize this need more than others as a standard for living a quality life (Ryan & Deci, 2000; Ryan, Huta & Deci, 2008). It is no surprise that human beings value their shared interactions, but the question remains as to why some appreciate their social bonds more than others.

With such emphasis on interconnectedness as human beings, this research is designed to examine the effects that fostering secure attachments in our relationships can have on leading a more grateful, fulfilling life. Finding the answer as to why interpersonal bonds signify importance in the lives of people may lie within the context of gratitude as a standard for life satisfaction. What is gratitude? According to Watkins,

Van Gelder, and Frias (2009, p. 438) "an individual experiences the emotion of gratitude

(i.e., state gratitude) when they affirm that something good has happened to them, and

they recognize that someone else is largely responsible for this benefit," a definition that

implies that people experiencing the emotion of gratitude attribute the positive outcome

to others. However, it is apparent that not every person is grateful, which begs the

question as to why some are more grateful than others. If gratitude is a trait important to

the good life, then it is important that we investigate how the disposition of gratitude

develops. One explanation that merits exploration is secure attachment. It could be

possible that secure attachment fosters the development of gratitude. Thus, it may be

important to address the relationship between gratitude and the specific attachment styles

individuals embody.

Attachment styles play an important role in understanding human interactions

because they impact the way in which individuals relate to one another. In adulthood,

people learn to identify with an attachment and caregiving style that best encompasses

their perceptions of relationships. These various views on relationships, working models

as Bowlby (1969, 1973, 1979, 1980, & 1988) referred to them, are the internal

perceptions in which people view themselves (working models of self) and their

relationship partners (working models of others), based on their childhood experiences

with their immediate caregivers. In times of distress and need, individuals will often

revert back to engaging in the components of their personalities that maintain felt security

and safeness (Bowlby, 1979). As such, these stable components are felt to lie within the

two dimensions of anxiety and avoidance (Ainsworth, Blehar, Waters & Wall, 1978;

Brennan, Clark, & Shaver, 1998). Feeney and Collins (2001) acknowledge that the

dimensions of anxiety and avoidance serve to mold adults into having secure, preoccupied (i.e., anxious), fearful (i.e., avoidant), or dismissing attachment styles. Bowlby (1969) suggests that the ability to self-soothe and regulate emotions are indicators of secure attachment in a close bond, resulting in an increased likelihood for those that are securely attached to successfully seek out and obtain support from their secure base. Thus, when individuals lack a secure base with early caregivers, their adult relationships suffer because the foundation of security and trust is transient.

Couples with secure attachment styles have relationships that foster greater commitment, trust, and satisfaction, while those with insecure styles tend to exhibit more problematic interactions (Besharat, 2003). Furthermore, securely attached people have greater resilience and well-being (Karreman & Vingerhoets, 2012), which may suggest that they choose to engage in less stressful interactions, or rather, respond to interpersonal problems in a more resilient fashion. Specifically, when faced with adversity, individuals with a higher threshold for stress tend to manage their difficulties in a healthier manner than those with lower tolerance or resiliency to life's challenges. Studies show that gratitude enhances well-being (Watkins, 2011), and similarly, securely attached individuals experience greater levels of psychological well-being (Raque-Bogdan, Ericson, Jackson, Martin, & Bryan, 2011). It is possible, that secure attachment enhances well-being in part through encouraging the development of gratitude. It is necessary to further establish the connection between gratitude and secure attachment because it potentially holds one of the keys to a meaningful, fulfilling life.

The purpose of this research is to examine the theory that secure attachment fosters gratitude (Lystad, Watkins, & Sizemore, 2005) and investigate potential reasons

why the relationship may exist. One could argue that those who are securely attached have an abundance of trust in relationships, increased well-being, and greater appreciation of social bonds, thus enhancing their gratitude. When discussing the literature linking gratitude and secure attachment, some shared factors exist and should be recognized. Notably, the concept of life satisfaction has several subcomponents, including trust, well-being, and appreciation.

The correlational research conducted by Lystad et al. (2005) utilizing the Experiences in Close Relationships measure (Brennan et al., 1998) and the GRAT-R trait gratitude measure (Watkins, Woodward, Stone & Kolts, 2003) demonstrates that individuals with secure attachment endorse higher rates of trait gratitude, while those with avoidant attachment report the lowest amount of gratitude. Interestingly, the Sense of Abundance subscale of the GRAT-R appeared to be the only subscale to have a significant relationship to secure attachment in the study, while contrary to predictions, the Social Appreciation subscale showed no significant relationship; thus, further research examining the various aspects of gratitude and how it relates to relationships is needed. With a lack of research directly establishing a causal relationship between secure attachment and gratitude, it is important to address the potential positive effects that fostering secure attachment may have on enhancing gratitude.

If a causal relationship exists between attachment and gratitude based on the foundation of trust and appreciation of others, then the results could potentially generate imperative, preventive, and constructive relational strategies, ideal for dealing with life's stressors. Specifically, individuals with an abundance of both gratitude and secure relationships are likely to be better equipped with the fundamental tools necessary to

handle unpleasant events. By handling stressful matters in an ideal manner, people possessing these traits could potentially model successful coping to prospective generations. The promotion of secure attachment with others could be essential to the development of gratitude, and in turn, increase the overall well-being of a person's life and their relationships.

To better understand these matters, it is necessary to examine previous research regarding gratitude enhancing well-being, history of attachment theory, protective factors in close relationships, and trust and appreciation in relationships.

**Gratitude enhances well-being**

Given that gratitude is a positive emotion, it is important to look at how the effects of positivity translate into other areas of a person's life, including close relationships. As mentioned previously, Watkins et al. (2009) suggests that the emotional state of gratitude is recognizing something good has happened and attributing that benefit to another; however, gratitude can also be perceived as an affective trait in which certain people high on this trait effortlessly experience more thankfulness. Research supports the notion that trait gratitude plays a role in enhancing happiness (for reviews, see Watkins et al., 2009; Watkins 2014). Seligman (2003) argues that a happy life is one that is pleasant, good, and meaningful, with the inclusion of important others. In other words, a person's life has a purpose, which allows for individual strengths to be highlighted and challenged within the context of interpersonal relationships. Because gratitude is not an emotion that is often felt without attribution to another individual, an emphasis on relationships with others may be essential to experiencing the goodness of interpersonal gratitude. Grateful people can be characterized as having an attitude that reflects a sense of abundance,

appreciation of others for contributing to their well-being, taking joy in simple pleasures, and acknowledging the significance of both experiencing and expressing gratitude (Watkins et al., 2003). Furthermore, those with a higher sense of gratitude are more likely to be agreeable, optimistic, hopeful, forgiving, and emotionally intelligent (Watkins, 2014), which potentially shows why they would make more stable relationship partners, parents, coworkers and friends.

Sansone and Sansone (2010) suggest that gratitude increases well-being because it involves appreciating aspects in one's life that represent value and meaning. Well-being has been defined as experiencing a high frequency of positive affect, relative to negative affect, as well as having a high frequency of affirmative cognitive evaluations regarding one's satisfaction with life (Toussaint & Friedman, 2009). Well-being is enhanced by gratitude when individuals commit to becoming more positive in their thought processes and actions (Lyubomirsky, Dickerhoof, Boehm, & Sheldon, 2011). For example, researchers have explored the positive outcomes that writing and delivering letters of gratitude can have on affectivity and mood. Specifically, not only do people feel happier after writing and delivering a letter of gratitude, the effects appear to last over time, as indicated by participants reporting enhanced positive affectivity and reduced depressive symptoms in one and two month follow-ups (Froh, Kashdan, Ozimkowski, & Miller, 2009; Seligman, Steen, Park, & Peterson, 2005).

More recently, Toepfer, Cichy, and Peters (2012) examined the effects of gratitude on well-being in terms of positive affect, negative affect, and cognitive evaluation by having participants write letters of gratitude over a three week period. Results suggested that participants were happier and more satisfied with life, as well as

less depressed. Similarly, Toussaint and Friedman (2009) examined the relationship of

forgiveness and gratitude, and found that both were strongly associated with life

satisfaction and prosocial behavior among participants. Findings from this study suggest

that when individuals are willing to forgive others for negative events in their lives, they

are more likely to seek social support, an important component of gratitude.

Another way that gratitude enhances well-being appears to be as a result of

recounting more positive aspects of our lives, rather than dwelling on the negative

misfortunes. Emmons and McCullough (2003) conducted a series of three studies to

demonstrate the effectiveness of counting blessings versus burdens, in regards to

enhancing well-being and interpersonal relationships. In the first study, participants were

placed in conditions requiring them to write down five events they felt either (a) grateful

for; (b) hassled with; or (c) general, neutral circumstances that occurred during the week.

Results showed that those in the grateful recounting condition reported more positive

benefits towards their life as a whole, including increased optimism, fewer physical

complaints, and a greater increase of exercising, as compared to the other two conditions.

The second and third studies emphasized daily journaling, and results indicated that those

in the grateful diary condition, as compared to the recounting hassles and downward

comparison conditions, not only expressed higher well-being, but they were also more

inclined to engage in prosocial behavior towards others, and reported increased positive

affect (Emmons & McCullough, 2003).

Furthermore, Froh, Sefick, and Emmons (2007) extended similar research to the

adolescent population, and found that when placed in the gratitude condition, as opposed

to the recounting hassles and control conditions, participants reported that counting their

blessings not only increased their life satisfaction as a whole, but also their satisfaction with school over time. Additionally, participants reported increased optimism and decreased negative affect following the gratitude intervention. As this study demonstrates, implementing the goodness of gratitude in the next generations can benefit several facets of their lives.

In line with previous research, Geraghty, Wood, and Hyland (2010) suggest that interventions involving gratitude diaries and thought monitoring produces many benefits for individuals, including decreased worrying, increased hope, and more likelihood to complete tasks. More recently, researchers have focused their efforts towards daily gratitude interventions as a way to increase well-being. Watkins, Uhder, and Pichinevskiy (forthcoming) conducted a study in which participants were asked to record daily either (a) three blessings they felt grateful for (gratitude 3-blessings condition); (b) three blessings that they prided themselves in (pride 3-blessings condition); or (c) a memory placebo condition regarding a task that occurred within their typical day. Participants completed this task daily for the span of one week treatment phases. Results indicated that the gratitude 3-blessings treatment demonstrated the greatest improvement in well-being both immediately following the experiment, and in their continued improvement after the treatment phase ended (Watkins et al., forthcoming). As current researchers have demonstrated, gratitude interventions may indeed be just as effective in clinical application of therapy as any other cognitive restructuring treatment for improving overall well-being.

According to Watkins (2011), gratitude is a prosocial trait that enhances well-being through the encouragement of socially supportive relationships. Additionally,

evidence suggests that gratitude not only enhances emotional well-being, but also serves as a protective factor against ill-being, thus alleviating the impact of negative emotions. In line with previous research, Nelson (2009) provides support that trait gratitude serves as a buffer against negative states, such as anger, narcissism, and depression. Wood, Maltby, Gillett, Linley, and Joseph (2008), asked participants to complete a battery of measures assessing gratitude, social support, depression, stress, and personality. Researchers found that gratitude directly promoted perceived social support, thus lowering levels of stress and depression. Because gratitude enhances well-being and serves as protective factor against negative affectivity, it is important to examine the characteristics of both grateful and less grateful people.

In sum, research provides strong support for the theory that gratitude enhances subjective well-being. As such, further research is needed to examine how gratitude develops over the course of an individual's lifetime to become an integral component of the self. Secure attachment may be a factor that strongly impacts the development of gratitude. Securely attached people may be more likely to be grateful people; hence, they may have higher life satisfaction and less problematic relationships with others. Thus, the causes of gratitude in the context of relationships need to be investigated. To explore this further, a basic understanding of attachment theory and styles is imperative.

**Attachment history and theory**

Attachment theory is rooted in the social and emotional development of human beings in regards to their relationships with others. Because how individuals learn to interact in their social world is largely molded in the impressionable childhood years, exploring development from the attachment perspective helps to solidify why felt

security in relationships is essential to a happier life. Attachment theory can be

characterized as the fundamental need for a child to experience closeness with a caregiver

that provides a safe, secure base from which to explore (Bowlby, 1988; Connors, 2011).

In most cases, children that demonstrate a secure attachment stem from having a

caregiver within proximity to comfort and soothe them in times of distress, whereas

insecure attachment can be described as lacking a consistent, readily available caregiver

to seek for help. Thus, securely attached children grow up perceiving themselves as

worthy of care and see others as trustworthy and available, while insecurely attached

individuals generally go through life experiencing the opposite effect. As with any

individual characteristic, it is important to recognize that a secure attachment style can

form even with an inconsistent parent, and likewise, an insecure attachment style can be

developed with even the most seemingly healthy caregiver-child relationship. Oftentimes,

genetic disposition and child resiliency (Atwool, 2006; Herrman et al., 2011) plays an

important role in these special circumstances.

The mental representations, or working models, that individuals create as children

about their caregivers, appear to carry on and evolve into adulthood, coloring the

perception and appraisals of one's close relationships (Bowlby, 1979 & 1980). Hazen and

Shaver (1987) maintain that child attachment style is relatively enduring and consistent

into adulthood, and Bowlby (1973) suggests that attachment is continuously formed

through social experience. Thus, those with insecure attachment styles may experience

romantic love as less stable than those with a secure attachment style, based on their

perceptions of themselves and others.

As mentioned previously, Brennan et al. (1998) and Fenney and Collins (2001) describe the four adult attachment styles as secure, preoccupied, fearful-avoidant, and dismissive, the latter three belonging in the insecure realm of attachment style. Each attachment style can be placed on a quadrant where a continuum is used to define an individual's level of both anxiety and avoidance. A secure style is often descriptive of an individual with low anxiety and low avoidance, in regards to their relationships. The opposite is true for individuals in the fearful category, as they present as both highly anxious and avoidant towards closeness. Individuals that may be described as preoccupied or anxious, present with a high anxiety towards relationships, but at a low avoidance rate. Conversely, the dismissive types tend to have a low anxiety or need for relationships, resulting in a high avoidance. Given these descriptions of attachment, it is possible that those with securely attached styles may be more likely to seek out social support and relationships because they have had positive experiences in their past reinforcing their trust in people. In contrast, those with insecurely attached styles may seek out excessive reassurance from others if they are preoccupied, or none at all if they are fearful or dismissive avoidant.

Current research however, suggests that while attachment style may be trait based, it also has the potential to be relationship-specific. Caron, Lafontaine, Bureau, Levesque, and Johnson (2012) investigated whether or not attachment style was a stable trait, or a style dependent on the context of a certain relationship. Participants completed measures assessing their well-being and relationships with their parents, friends, and romantic partners. Findings suggested that individuals generally experience different attachment patterns in various types of relationships with others, supporting the context

model that attachment is relationship-specific. With this knowledge, it is possible that

certain relationships tend to foster positive emotions, such as gratitude, resulting in secure

attachment. This is important because potentially enhancing felt security in a person's life

may increase their appreciation in current relationships, or challenge them to seek others

that also embody positive emotions.

**Protective factors in close relationships**

Although close relationships may serve different purposes in order for particular

needs to be fulfilled, the presence of empathy is necessary for most interactions to be

successful. Empathy, the ability to have compassion and understanding for another

individual, is a crucial part of all relationships. As mentioned previously, Watkins (2014)

suggests that gratitude is associated with higher emotional intelligence, in which empathy

for others is a critical component. This supports the possibility that grateful individuals

may also be more securely attached. Joireman, Needham, and Cummings (2002)

addressed the relationship between attachment, in regards to closeness, trust, and anxiety,

and three components of empathy: empathic concern, perspective taking, and personal

distress. Securely attached participants with higher levels of trust and comfort found it

easier to experience closeness with others, and were able to express more empathic

concern and perspective taking. In contrast, less securely attached participants with

higher levels of anxiety placed more of an emphasis on their own personal distress.

In line with previous research, Lavy and Littman-Ovadia (2011) describe

insecurely attached individuals as having lower levels of life satisfaction, while more

securely attached individuals embrace social interactions involving love, hope, and

gratitude. Particularly, participants with avoidant styles scored the lowest on factors of

love, zest, gratitude, and hope, while anxious participants lacked hope, curiosity, and

perspective, in regards to life satisfaction. This finding begs the question of compromise

and the role selflessness plays in romantic relationships. Essentially, without the capacity

to love another person, remain hopeful, or the ability to take on the perspectives of others,

one could imagine how difficult it would be to maintain a healthy, happy relationship.

Ruppel and Curran (2012) examined the connection between relationship sacrifices and

satisfaction among couples, based on their attachment orientations. Results showed that

relationships benefit more overall from frequent, easy sacrifices, rather than demanding,

difficult ones. Thus, reciprocity and the consideration of a partner's needs is a

fundamental basis for accommodation between two people. Relationship satisfaction and

closeness are essential to happiness, and both are clear components in relationships that

are securely attached. Because both gratitude and secure attachment highlight the need

for healthy social support and enhanced well-being, it is necessary to examine how trust

and appreciation strengthen relationships in a way that promotes life satisfaction.

**Trust and appreciation within relationships**

When examining the relationship between people that are both grateful and

securely attached, they may experience more life satisfaction because of their

appreciation and trust of their social world. The tendency to seek out social support is

common to both gratitude and secure attachment, especially in intimate relationships.

Mikulincer (1998) explored the association between adult attachment style and sense of

trust. Results revealed that secure individuals have a greater sense of trust towards

partners, higher numbers of trust memories, and employ more constructive coping

strategies with the desire to attain intimacy, than any other attachment style. Not

surprisingly, research suggests that protective factors in marital satisfaction and adjustment include both appreciation and trust, as well as respect, commitment, and mutual affection (Schramm, Marshall, Harris, & Lee, 2005).

According to Dunn and Schweitzer (2005), trust is the choice to be vulnerable to another person, with the expectation of reciprocity. These researchers found that the positive emotions of gratitude and happiness increased trust among participants in various social situations, while the negative emotion of anger decreased trust. In other words, trust is enhanced when gratitude is present in social interactions. As previously noted, happiness is common to both grateful and securely attached people, thus suggesting a relationship may also exist involving trust. Similarly, Gino and Schweitzer (2008) found that trust was fostered when participants experienced induced gratitude. Furthermore, participants were more receptive to advice when their gratitude was enhanced, as opposed to those in ungrateful conditions. Healthy relationships are important to overall well-being and life satisfaction, therefore, the study of trust may contribute a great deal to the future of gratitude research. Although an argument presented above asserts that secure attachment and trust fosters gratitude, this research implies that gratitude may enhance trust as well.

When trust is prevalent in our relationships, memories associated with loved ones are often perceived more positively. People are biased when recalling favorable memories of their partner because they desire to trust and bond with their loved ones, rather than think of them unfavorably (Lemay & Neal, 2012). While individuals may actively create perceptions of others or themselves, many of the person perception processes are automatic and unconscious. Similarly, attachment relationships with

parents and peers showed the best outcomes on reducing depressive symptoms, such as rumination, when there was perceived trust and interpersonal communication (Ruijten, Roelofs, & Rood, 2011). In short, when people feel safe, they are more likely to trust.

It is possible that a meaningful life is one in which individuals have the capacity to appreciate their surroundings and share their experiences with those they trust. Adler and Fagley (2005) maintain that appreciation is a process involving both the facilitation and enhancement of well-being, as a way of building social relationships through expressing appreciation and gratitude to others. Moreover, appreciation is significantly related to many aspects of life satisfaction and positive affectivity. This could be why the appreciation of others is crucial to the development of close, secure relationships. Gordon, Impett, Kogan, Oveis, and Keltner (2012) emphasized the importance of gratitude in regards to maintaining satisfaction within intimate relationships. In a sequence of studies, Gordon et al. (2012) found that when people feel more appreciated by their partners, they tend to reciprocate mutual feelings of appreciation. Individuals also reported higher levels of responsiveness and commitment to their partners when they felt appreciated. Similarly, Lambert and Fincham (2011) found that expressing gratitude towards a romantic partner increases positive perceptions, allowing for more comfortable, open communication regarding relationship concerns.

Because individuals tend to perceive their world through past experiences in close relationships, guided memory and imagery has been found to successfully prime attachment. By acknowledging relationship memories, individuals can readily access aspects of their past that may have served as a reference for their future bonds. McGowan (2002) examined the effects of priming attachment styles on participants in stressful

situations. Participants were asked to either think of a significant other or an acquaintance, while anticipating a stressful task. Securely primed individuals that viewed themselves positively had decreased anxiety when imagining a loved one, while the opposite was true for insecurely primed individuals that viewed themselves negatively (McGowan, 2002). In a similar study conducted by Mikulincer, Shaver, and Rom (2011), secure attachment was primed by asking some participants to write about scenarios in which supportive people in their life comforted them in times of distress, while others wrote about acquaintances. Results suggested that priming attachment styles appears to be a relatively useful method of investigating the cognitions individuals create about their close relationships in order to self-soothe. Thus, attachment priming procedures may be valuable for investigating the causal relationship between secure attachment and gratitude.

In sum, we have seen that gratitude is important to well-being, and thus studies exploring how gratitude might develop are important. Furthermore, we have seen that secure attachment is a reasonable foundation for the development of gratitude. Given that well-being, trust, and appreciation are common to both gratitude and secure attachment, it makes sense that secure attachment potentially causes enhanced gratitude. Moreover, secure attachment should promote a basic trust in one's social world, which may in turn cultivate gratitude. This is because when people trust the motives of others, they are more likely to be grateful for benefits that others provide. On the other hand, if people are mistrusting or cynical of others, then they will question the motives of others when favors are done for them, and consequently, gratitude is less likely to ensue.

**Current Study**

While there appears to be some sort of relationship between attachment and gratitude, a lack of causal research linking secure and insecure attachment styles to gratitude leaves the area open for interpretation. A correlation between secure attachment style and gratitude may mean that secure attachment fosters the development of gratitude. It could also be that gratitude enhances secure attachment, or it could even mean that there is a reciprocal relationship between attachment and gratitude. Likewise, the relationship could be created by a third variable, such as well-being. Experimental approaches should help to clarify the attachment/gratitude relationship. To examine this relationship, I primed participants with a scenario inducing a secure attachment style contrasted with priming other forms of attachment. Additionally, I asked participants to complete standard measures assessing affect and gratitude.

With a vast amount of research supporting common themes such as well-being, trust, and appreciation, in both gratitude and attachment, I predicted that individuals would report more state gratitude when primed with secure attachment memories than when primed with insecure or attachment irrelevant memories. In addition, I predicted that those primed with secure attachment memories would report the most positive affect on the administered affectivity measures, while insecurely primed individuals will report the most negative affect. If safeness and security are factors in forming meaningful interactions and enhancing well-being, it makes sense for individuals to appraise their memories with a higher level of appreciation and positivity; however, the opposite may be true for persons thinking of an unsafe figure.

**Method**

**Design**

A one-way multiple group experimental design was used to study the relationship between gratitude and attachment, when a secure or insecure attachment style is primed. The between-subjects independent variable was attachment style, which was utilized as a prime that included three levels: Secure, insecure, and a control condition. Each participant received only one of the three primes, and they all completed the same measures before and after the prime occurred. Sixty-one participants received the secure prime condition, 62 participants received the insecure prime condition, and 72 participants received the control prime condition. The dependent variable was the level of state gratitude reported after the prime. A predominantly used covariate in this study was the adjectives from the incoming Gratitude Adjectives Scale (GAS) within the PANAS-X: Grateful, thankful, and appreciative, as the incoming GAS scale strongly correlated with the dependent variable of state gratitude towards life, $r(194) = .72$, $p < .001$. This study was reviewed and approved by the Internal Review Board of Eastern Washington University.

**Participants**

Current college students at Eastern Washington University served as participants for this study. Students from various undergraduate Psychology courses were asked to participate in a study investigating their personalities. Additionally, students were given the incentive of obtaining extra credit. A total of 195 participants were involved (143 females, 50 males, and two who chose not to declare their gender). Females comprised 74.1 percent of the population sample and males comprised the remaining 25.6 percent.

The ages of participants ranged from 18 to 51, with the majority of the sample (81

percent) falling within the 19-25 age bracket. The sample consisted of one freshman, 27

sophomores, 84 juniors, 80 seniors, and three who chose not to declare. Caucasians

comprised the majority of the sample ($n = 123$), while 12 identified as being of African

American descent, 14 as Latino/Latina/Hispanic descent, 5 as Native American/American

Indian, and 4 as Asian/Pacific Islander (37 participants chose not to declare their

race/ethnicity).

**Materials**

Participants in this study filled out The Positive and Negative Affect Schedule –

Expanded Version (PANAS-X; Watson & Clark, 1994), a 60-item questionnaire referring

to feelings and emotions felt in the past two weeks, in order to gauge incoming affect.

The PANAS-X was scored using two of the measure's dimensions assessing affect, 10

positive affect words and 10 negative affect words. Additionally, the three adjectives

("grateful," "appreciative," "thankful") from the Gratitude Adjectives Scale (GAS;

McCullough, Emmons, & Tsang, 2002) were incorporated into this measure to establish

initial gratitude, making it 63 items. The primary purpose of including the GAS in this

study was to control for incoming gratitude as a covariate in the analyses. Participants

were instructed to rate each of the 63 items from 1, *very slightly or not at all* to 5,

*extremely* on how much they felt the item related to them. Some of the words and phrases

participants were asked to rate for themselves were "active," "inspired," "hostile," and

"ashamed." The positive affect items had a mean of 3.24 (SD = 0.72) and high internal

consistency reliability (Cronbach's α = .88). The negative affect items had a mean of 1.99

(SD = 0.58) and high internal consistency reliability (Cronbach's α = .80).

Distraction items were incorporated in this study to decrease the likelihood of participants discovering the purpose of the study. Participants answered three basic questions on scale ranging from 1, *completely disagree,* to *5, completely agree.* The questions were, "I would like to see more public phones available in Spokane," "Spokane busses carry a lot of people," and "Typically, there are many people in the PUB." (The "PUB" stands for "Pence Union Building," a common gathering place for students on the Eastern Washington University campus).

Participants were primed with personal memories provoking secure and insecure attachment styles. The priming technique utilized was adapted from previous research conducted by Mikulincer et al. (2011), asking participants to think of a specific interaction from memory that occurred with a person they found either supportive or unsupportive, followed by a writing exercise and a creativity task. In this particular study, participants were asked to take 30 seconds to recall a specific interaction in their lives involving a supportive person that they generally turn to when they are distressed or worried (secure prime), or an unsupportive person that they would not prefer to turn to during a distressing time, who may not have been helpful in the past (insecure prime). In the secure prime condition, participants were instructed to, "Take the next few moments to think about a person in your life that is/was comforting and reassuring to you. Please write their initials in this space," and a space was provided for them. In the insecure prime condition, participants were instructed to, "Take the next few moments to think about a person in your life that is/was inconsistent and unpredictable to you. Please write their initials in this space," and a space was provided for them.

Next, participants in the insecure and secure conditions were instructed by, "What are six words you would use to describe that person? Please take the next minute to list them below," and a space was provided for them numbered one through six. Finally, participants were asked to take the next two minutes to briefly imagine and write about the memory of the particular distressing situation where they felt comforted or uncomforted by this person. In the secure prime condition, the instructions were, "With that same person in mind, imagine a specific memory with them that made you feel like they were a safe and soothing figure in your life. Please take the next two minutes to write and describe that particular memory with them below." In the insecure prime condition, the instructions were, "With that same person in mind, imagine a specific memory with them that made you feel like they were an unsafe and discomforting figure in your life. Please take the next two minutes to write and describe that particular memory with them below."

The control priming group was asked to follow similar instructions, but with an acquaintance from class in mind to whom they are not very close. The control prime condition was also timed for 30 seconds, one minute, and two minutes during the first, second, and third set of instructions, respectively. Participants in the control prime condition were instructed to, "Take the next few moments to think about an acquaintance from class, whom you do not know very well. If you know their initials, please place them in the space provided. Otherwise, make up two initials," and a space was provided for them. Next, participants in the control prime condition were instructed by, "From the few interactions you've had with them, what are six words you would use to describe that person? Please take the next minute to list them below," and a space was provided for

them numbers one through six. Finally, participants in the control condition were asked to imagine and write about a specific school activity involving that person. Participants in the control prime condition were instructed, "With that same person in kind, imagine a specific memory from class with them that stands out to you. Please take the next two minutes to write and describe that particular memory with them below."

Following the attachment prime, participants were asked to complete five global questions assessing their current state gratitude towards life as a whole. The Gratitude for Life Scale was designed specifically for this study to gauge the participants' general attitudes about gratitude directly following the prime. All items on the Gratitude for Life Scale had high internal consistency reliability, (Cronbach's $\alpha = .91$), and the measure had a mean of 6.08 (SD = 1.04). The five questions being asked included, "I feel thankful for my life," "Right now, as I think about the big picture of my life, I feel very grateful," "Considering all that has happened in my life, I feel very appreciative for my life," "I have so much in life to be thankful for," and "Right now, there a lot of people that come to mind, for whom I am grateful." The items were rated on a scale ranging from 1, *I strongly disagree*, to, 7, *I strongly agree.*

Participants completed a measure assessing state affectivity. The Positive and Negative Affect Schedule—Short Form (PANAS-SF; Watson, Clark, & Tellegan, 1988) is a brief questionnaire used to measure the positive and negative affectivity of participants. The PANAS-SF consists of 20 items, 10 positive affect words and 10 negative affect words, that were rated on a 5-point scale, with the anchors '*never*' and '*always.*' For each item, participants were instructed by the following statement: "Thinking about yourself and how you normally feel, to what extent do you generally

feel" and they were asked to rate themselves from this statement on a scale ranging from

1-5 for items such as, "upset," "hostile," "alert," "ashamed," "inspired," "nervous,"

"determined," "attentive," "afraid," and "active." Additionally, the three adjectives

("grateful," "appreciative," "thankful") from the GAS were incorporated into this

measure to asses state gratitude, making it a 23 item scale. The positive affect items had a

mean of 2.83 (SD = 0.91) and high internal consistency reliability (Cronbach's α = .92).

The negative affect items had a mean of 1.49 (SD = 0.61) and high internal consistency

reliability (Cronbach's α = .89).

A manipulation check was incorporated into this study to assess how well the

participants knew the person they chose to write about in the prime. Participants were

asked to reflect back on the person they thought and wrote about earlier. Using a Likert

scale ranging from 1, *strongly disagree*, to, 7, *strongly agree,* they responded to two

items, "I know this person very well," and "Right now, I feel close in my relationship

with this person." Based on their responses, this helped to solidify whether or not the

prime induced its intended effects in the secure, insecure, and control conditions.

Participants completed the Experiences in Close Relationships—Revised (ECR-

R; Fraley, Waller, & Brennan, 2000) to assess their stable attachment style in

relationships. The ECR-R was primarily used as a covariate in this study to see if trait

attachment had an effect on the state attachment prime and gratitude measures. The ECR-

R consisted of 36 items, 18 anxiety statements and 18 avoidance statements, some of

which are reversed-scored, that were asked to be rated on a scale ranging from 1, *strongly*

*disagree*, to, 7, *strongly agree*. For example, participants rated themselves on items such

as, "I often worry that my partner will not want to stay with me," "I worry a lot about my

relationships," "I prefer not to be too close with romantic partners" and "I rarely worry about my partner leaving me." There was high internal consistency reliability for the items on anxious dimension, (Cronbach's α = .92), with a mean of 3.28 (SD = 1.23), and the high internal consistency reliability for the items on the avoidance dimension, (Cronbach's α = .95), with a mean of 3.02 (SD = 1.25).

The Gratitude Questionnaire—6 (GQ-6; McCullough, Emmons, & Tsang, 2002) was used to gauge the intensity, frequency, density, and span of trait gratitude. The GQ-6 consisted of 6 items, two of which are reverse scored, that were asked to be rated on a scale ranging from 1, *strongly disagree*, to, 9, *strongly agree*. Specifically, participants rated themselves on the statements, "I have so much in life to be thankful for," "if I had to list everything that I felt grateful for, it would be a very long list," "when I look at the world, I don't see much to be grateful for," "I am grateful to a wide variety of people," "as I get older I find myself more able to appreciate the people, events, and situations that have been part of my life history," and "long amounts of time can go by before I feel grateful to something or someone." The GQ-6 had a mean of 5.77 (SD = 1.05) and there was high internal consistency reliability among the items, (Cronbach's α = .85).

In another trait gratitude measure, participants were asked to fill out the Gratitude Resentment Appreciation Test—Short Form (GRAT-SF; Thomas & Watkins, 2003) to measure their sense of abundance, appreciation of simple pleasures, and appreciation of others. The measure consisted of 16 items that were asked to be rated on a scale ranging from 1, *I strongly disagree*, to, 9, *I strongly agree*. For example, participants rated themselves on items such as, "More bad things have happened to me in my life than I deserve" (abundance item), "Every fall, I really enjoy watching the trees change colors"

(appreciation of simple pleasures item), and "I feel deeply appreciative for the things others have done for me in life" (appreciation of others item). The GRAT-SF had a mean of 7.07 (SD = 1.06) and there was high internal consistency reliability among the items, (Cronbach's α = .86).

The Cynicism and Lack of Trust Scale (CLOT; Floberg, Sestrap, Bart, & Watkins, 2014) was used for supplemental purposes to assess the current state level of cynicism and trust in participants. The measure consisted of 23 items that were asked to be rated on a scale ranging from 1, *I strongly disagree*, to, 9, *I strongly agree*. For example, participants rated themselves on items such as, "Recently, people have been taking advantage of me," "I would be making a lot more progress towards my goals if the people in my life could be more supportive," and reversed scored items such as, "Recently I have noticed that my friends have been very supportive of me." The CLOT had a mean of 3.66 (SD = 1.12) and there was high internal consistency reliability among the items on the scale, (Cronbach's α = .90).

Participants also filled out a basic demographic section, answering questions such as age, gender, class standing, ethnicity, and income.

**Procedure**

Participants were provided with a thorough study description indicating their consent, and were then instructed to anonymously fill out a packet of questionnaires provided to them. Participants in all three conditions of the prime were administered the study in the same room, with the same verbal instructions. Participants were instructed to follow the directions printed on each page of the packet. If it was stated anywhere,

"Please stop. Please wait for the experimenter to instruct you turn the page/move onto the next task," participants were asked to wait quietly until instructed to move on.

First, participants completed the PANAS-X measure at their own pace. Next, participants completed the three distraction items, and were instructed to wait to move onto the next page and task. Once all of the participants were finished with the second page, the experimenter verbally instructed the participants to turn the page and guided them through the steps and timing of the attachment prime. The experimenter then stated, "Please read the instructions and take the next 30 seconds to think of your person." The experimenter then set a timer for 30 seconds and waited for the participants to think of their person in the first section of the prime.

When the 30 seconds were complete, the experimenter stated, "Please stop. Now, with your person in mind, please read the instructions and describe them below." The experimenter then set a timer for one minute and waited for the participants to write down six qualities about their person in the second section of the prime.

When the one minute was complete, the experimenter stated, "Please stop. Now, take the next two minutes to read the instructions and write about the memory involving your person." The experimenter then set a timer for two minutes and waited for the participants to write down the specific memory of their person in the third section of the prime. When the two minutes were complete, the experimenter stated, "Please stop. Please turn the page and finish the packet at your own pace. When you are finished, come to the front and lay the packet face down."

Following the attachment prime, participants filled out the Gratitude for Life Scale to assess global gratitude. Next, participants completed the PANAS-SF. After that,

the manipulation check was completed by the participants. The ECR-R was then

completed on the following page. Towards the end of the study, participants filled out

measures to assess dispositional gratitude. Participants filled out the GQ-6, and then the

GRAT-SF. Participants also filled out a brief measure assessing trust and cynicism for

supplemental purposes. Finally, participants completed a brief demographics section.

After completing the questionnaires, students placed their packets face down on a table

for the experimenter to collect.

## Results

### Manipulation check

Two questions in this study served as a manipulation check, for the purpose of

seeing if the three conditions of the priming manipulation had the intended effect. This

was put into place to see whether or not participants were accessing their instructed types

of memories, secure, insecure, or neutral (control), based on their study packet condition.

The two questions being asked on a scale of 1-7 were: 1.) "I know this person very well,"

and 2.) "Right now, I feel close in my relationship with this person." Higher numbers

associated with the first question would indicate that participants knew their person well,

which would be expected for those in the secure and insecure conditions. Higher numbers

associated with the second question would indicate closeness to their person, which

would be expected for those in the secure condition, but not in the insecure or control

condition.

For question one, $F(2, 190) = 158.10$, $p < .001$, participants in the secure prime

condition reported a mean of 6.67 ($SD = 0.57$), the insecurely primed participants

reported a mean of 6.02 ($SD = 1.55$), and the control condition participants reported a

mean of 2.69 (*SD* = 1.72). The secure condition was significantly different from both the

insecure condition (*p* = .011), and the control condition (*p* < .001). The differences

between the secure and insecure groups resulted from those in the secure condition

producing the highest mean in terms of knowing their person very well. While those in

the insecure condition did have a high mean score in the direction predicted, they were

not as high as those in the secure condition, likely because their current relationship with

that formerly close person from memory is strained or no longer existing.

For question two, *F*(2, 190) = 77.68, *p* < .001, securely primed participants

reported a mean of 6.16 (*SD* = 1.58), insecurely primed participants reported a mean of

2.92 (*SD* = 2.07), and the control condition reported a mean of 2.50 (*SD* = 1.76). The

secure condition was significantly different from both the insecure condition (*p* < .001),

and the control condition (*p* < .001). The insecure condition was not significantly

different from the control condition (*p* = .190), which would make sense, due to the

nature of question two asking if they felt close in their current relationship with their

person. As such, those in the insecure and control conditions did not feel close to their

person from memory, which was an expected response to the prime.

All three conditions demonstrated the expected direction of scores for each

question. This data supports each of the conditions that were expected to be significantly

different from one other. Thus, these results indicate that the attachment prime should

have produced the intended memories for the purpose of this study.

**Primary Analysis: Attachment priming and state gratitude**

The state gratitude measures of the Gratitude for Life Scale and the GAS

occurring in the PANAS-SF were transformed into z-scores and averaged together, due to

their strong correlation, $r(194) = .69$, $p < .001$. The Gratitude for Life Scale and GAS measures had differing response scales, thus resulting in the use of z-scores to standardize their values. As predicted, there was a main effect of the prime itself on state gratitude, $F(2, 192) = 3.47$, $p = .033$ when performing a one-way ANOVA. Figure 1 presents the means. LSD post-hoc tests revealed that the secure condition ($M = 0.16$, $SD = 0.76$) and insecure condition ($M = -0.24$, $SD = 1.06$) were significantly different from one another ($p = .015$), with securely primed individuals reporting more state gratitude. Securely primed individuals did not report a significantly different amount of gratitude than those in the control condition ($p = .615$). Those primed with the insecure condition ($M = -0.24$, $SD = 1.06$) reported significantly less gratitude ($p = .041$) than those in the control condition ($M = 0.08$, $SD = 0.88$).

The main effect remained significant when performing an ANCOVA, with the z-score GAS from the PANAS-X used as a covariate for incoming gratitude, $F(2, 190) = 3.62$, $p = .029$. This indicates that there was a significant change in gratitude resulting from the attachment priming. While there was statistical significance between the secure and insecure conditions ($p = .009$), there was no longer statistical significance between the insecure and control conditions ($p = .312$); however, there was marginal significance between the secure and control conditions ($p = .083$), when the covariate was used. Additionally, when using the two attachment dimensions (i.e., anxious and avoidant) from the ECR-R stable attachment measured as covariates in an ANCOVA, the main effect between the prime and state gratitude was still significant $F(2, 189) = 3.29$, $p = .039$, but again, only between the secure and insecure conditions ($p = .013$).

**Attachment priming with positive and negative affect**

Contrary to predictions, there was no significant main effect of the attachment prime on state positive affect from the PANAS-SF. This means there was no significant difference between those primed with secure attachment and the other attachment primes with regard to positive affect. Notably, there was a main effect of attachment prime on state negative affect from the PANAS-SF, $F(2, 192) = 3.15$, $p = .045$, when performing a one-way ANOVA. LSD post-hoc tests revealed that there was a significant difference ($p = .013$) with the insecurely primed individuals ($M = 1.63$, $SD = 0.78$) reporting more negative affect than those in the control condition ($M = 1.37$, $SD = 0.45$), which did not differ from the secure condition. However, when running an ANCOVA with incoming negative affect from the PANAS-X as the covariate, the main effect of state negative affect was no longer significant. Similarly, when running an ANCOVA with the two stable attachment dimensions from the ECR-R as covariates, the main effect of prime on state negative affect was no longer significant. The difference was marginally significant ($p = .056$) between the insecure and control conditions when using incoming GAS gratitude from the PANAS-X as a covariate.

**Supplemental Analyses**

*Attachment priming and trait gratitude*

Interestingly, the GRAT-SF trait gratitude measure that was administered later in the study also revealed a significant main effect of attachment priming when performing a one-way ANOVA, $F(2, 192) = 5.71$, $p = .004$. LSD post-hoc tests revealed that participants in the secure condition ($M = 7.11$, $SD = 1.02$) reported significantly more gratitude ($p = .040$) than those in the insecure condition ($M = 6.72$, $SD = 1.09$). There was

also a significant difference ($p = .001$) between the insecure condition ($M = 6.72$, $SD =$

1.09) and the control condition ($M = 7.33$, $SD = 1.06$). There was no significant

difference between the secure condition and control condition ($p = .234$). Figure 2

illustrates these effects. The effect remained significant, $F(2, 190) = 3.73$, $p = .026$, when

the incoming GAS from the PANAS-X was used as a covariate in an ANCOVA.

However, there was only a significant difference ($p = .008$) between the insecure

condition ($M = 6.72$, $SD = 1.09$) and control condition ($M = 7.33$, $SD = 1.06$), and there

was marginal significance between the secure and insecure condition ($p = .075$), after

performing LSD post-hoc tests when the covariate was used. The main effect also

remained significant when using the anxious and avoidant dimensions from the ECR-R as

covariates to control for stable attachment, $F(2, 189) = 4.63$, $p = .011$. When LSD post-

hoc tests were performed, the secure prime significantly differed from the insecure prime

($p = .028$) and the neutral prime significantly differed from the insecure prime. There was

no significant difference between the secure prime and the control prime conditions.

Conversely, when performing an ANOVA with the GQ-6 trait gratitude measure

and the prime, there was no significant main effect of the prime on trait gratitude, $F(2,$

$191) = 2.26$, $p = .107$. There was no main effect between the prime and trait gratitude

when an ANCOVA was performed for the incoming GAS from the PANAS-X, nor was

there a main effect when the ECR-R dimensions were used as covariates

*Cynicism and lack of trust with attachment, gratitude, and affectivity*

The CLOT, a cynicism and lack of trust measure used for supplemental purposes,

did not reveal any significant findings in relation to the attachment prime itself when

performing a one-way ANOVA. When running Pearson-r correlations, however, the

CLOT moderately and positively correlated with the anxious dimension of the ECR-R,

$r(194) = .42$, $p < .001$, and showed a small positive correlation with the avoidant

dimension of the ECR-R, $r(194) = .27$, $p < .001$. The CLOT also correlated with several

of the gratitude measures within the study. The CLOT was strongly and negatively

correlated with the GRAT-SF, $r(194) = -.60$, $p < .001$, and with the GQ-6, $r(193) = -.52$,

$p < .001$. The CLOT was also moderately negatively correlated with the combined

Gratitude for Life Scale and GAS measure used after the attachment prime, $r(194) = -.43$,

$p < .001$. In regards to trait and state negative affectivity, the CLOT moderately and

positively correlated with the negative affectivity from the PANAS-X $r(192) = .41$, $p <$

.001, and moderately and positively correlated with the negative affectivity from the

PANAS-SF, $r(194) = .30$, $p < .001$.

## Discussion

The primary purpose of the study was to examine the effect of priming secure and

insecure attachment style on state gratitude. Using an experimental design allowed us to

test the theory that secure attachment promotes the development of gratitude. Although

past studies had revealed a positive association between secure attachment and gratitude,

whether it was secure attachment that fostered gratitude, gratitude fostering secure

attachment, or both acting in a reciprocal relationship, was unclear. This study looked to

further clarify the relationship between attachment and gratitude by using a priming task.

Therefore, I predicted that participants receiving the secure attachment prime would

report the highest amount of state gratitude, as compared to those in the insecure and

control conditions. This hypothesis was generally supported by the data. Participants

receiving the secure attachment prime reported the greatest state gratitude overall. Those

in the secure condition reported significantly higher state gratitude than participants in the

insecure condition. When stable attachment was used as a covariate, the attachment prime

still produced a main effect on state gratitude. However, those in the secure condition

were not significantly different from participants in the control condition. Nonetheless,

securely primed individuals still reported a trend of the most enhanced state gratitude,

with the insecurely primed group reporting the least amount of state gratitude.

As previously demonstrated by Mikulincer et al. (2011), attachment priming does

appear to be a reliable method of conducting experimental research. In line with previous

research, it makes sense that the securely primed individuals reported the most state

gratitude, as those that are securely attached demonstrate higher levels of psychological

well-being (Karreman & Vingerhoets, 2012; Raque-Bogdan et al., 2011). Additionally, if

the emotional state of gratitude is largely due to attributing the benefit of something good

done for you by another person (Watkins et al., 2009), then securely primed individuals

may have been experiencing gratitude in their memories where a loved one made them

feel safe and secure. Maltby et al. (2008) maintained that gratitude promotes perceived

social support, and so, individuals exposed to the secure prime may have been

experiencing a sense of support from the memory of their attachment figure.

Furthermore, Lyubomirsky et al. (2011) suggested that individuals experience

increased gratitude when they experience more positive thought processes; therefore,

securely primed individuals imagining a safe and soothing figure in their lives likely

produced positive memories, resulting in enhanced state gratitude. Are thoughts of secure

attachment a special kind of positive thought that is more likely to promote gratitude than

other positive thoughts? This question remains to be answered by future research. The

above finding also gives merit to the research conducted by Caron et al. (2012) supporting the theory that attachment may indeed be relationship-specific. Even when stable attachment was held constant in this study, the effect of the prime on amount of gratitude expressed was still significant. In other words, the effects of the prime may have overpowered stable (or unstable) attachment, based on the participants' specific conditions with their particular attachment figure in mind. For example, this research suggests that someone thinking of a secure situation involving a motherly figure, ex-partner, or classmate is likely to have relationship-specific attachment reactions to the prime, regardless of their more stable attachment orientation.

Even when controlling for incoming gratitude, those experiencing the secure attachment prime still reported a significantly greater amount of state gratitude than those receiving the insecure prime. Likewise, participants primed with the insecure condition consistently reported the least amount of state gratitude overall, when compared to the other two conditions. When controlling for incoming gratitude, insecurely primed participants were significantly lower in gratitude when compared to those in the secure condition, and the effect with the control condition was marginally significant. Since trait gratitude has been shown to enhance happiness (Watkins et al., 2009; Watkins 2014), using incoming gratitude over the span of two weeks as a covariate in this study was essential for determining whether or not other positive emotions were affecting the prime. Indeed, if those high in trait gratitude already experience and express gratitude more readily (Watkins et al., 2003), then holding incoming gratitude constant was important for attempting to gauge an accurate self-report of state gratitude. Ultimately, individuals like to think of their partners and loved ones more favorably (Lemay & Neal, 2012), and

so the enhanced levels of state gratitude from the securely primed participants is not

surprising.

Without definitive differences between the control condition and both the securely

and insecurely primed individuals, it is somewhat challenging to establish a direct causal

link between fostering both secure attachment and gratitude, as a way of enhancing well-

being. From my results, I cannot be sure whether secure attachment is enhancing

gratitude, insecure attachment is decreasing gratitude, or some of both. The pattern of the

data seems to most clearly support the interpretation that secure attachment was

increasing, and insecure attachment was decreasing gratitude. The greater differences

however, appeared to be between the insecure attachment and control conditions rather

than secure attachment and control condition. One argument that could be made for the

discrepancy in the results between the secure and neutral prime is this: That it is not

necessarily fostering secure attachment that promotes increased gratitude, but rather,

insecure attachment limits the capacity in which a person experiences gratitude. Stated

differently, accessing negative memories about a current or former significant figure

produces more intense negative emotions, thus inhibiting gratitude. Alex Wood has

suggested that the primary question might not be what promotes the development of

gratitude, but rather what inhibits the development of gratitude (Wood, personal

communication to Watkins, October, 2013). The pattern of my results most directly

supports the theory that insecure attachment might inhibit the development of gratitude.

Since relationships are a fundamental component to human nature (Ryan & Deci,

2000; Ryan et al., 2008), it would make sense that insecurely attached individuals

experience the world with less gratitude. This may be either because they have fewer

people to share and experience gratitude with, or they have fewer people that they choose

to share or experience gratitude with. As discussed previously, if individuals are not high

in levels of gratitude, they are more prone to the effects of negative emotions (Nelson,

2009). Furthermore, insecurely attached individuals may not appreciate their

relationships with the level of gratitude needed to receive and reciprocate security and

safeness. A certain level of empathy (Joireman et al., 2002) and relationship sacrifice

(Ruppel & Curran, 2012) is essential to maintaining a healthy relationship; therefore,

lacking those qualities may lead to lower life satisfaction (Lavy & Littman-Ovadia,

2011).

　　　While securely primed individuals reported more state gratitude overall, they did

not report significantly higher state positive affect. However, participants in the secure

prime did report the highest positive affect. The increased level of positive affect for

securely primed individuals is no surprise, as McGowan (2002) demonstrated that

thinking of a loved one during times of distress decreased negative emotions. In line with

predictions, however, insecurely primed individuals reported significantly less state

gratitude overall. As expected, participants in the insecure prime condition reported the

most state negative affect when compared to those in the secure and control conditions.

This finding makes sense, considering the research supporting the notion that counting

burdens instead of blessings produces negative effects on affect and well-being (Emmons

& McCullough, 2003; Froh et al., 2007; Geraghty et al., 2010).  Interestingly, the

negative affective state of participants in the insecure condition significantly differed

from those in the control condition, but not from participants in the secure condition.

Contrary to the prediction that securely primed individuals would report the least amount

of negative affect, participants in the control condition actually reported the lowest level of state negative affectivity (although this level was not significantly different from those in the secure prime condition).

It could be that it was easier for individuals in the securely primed condition to readily access memories of supportive loved ones, without undue difficulty and exerted emotion. However, both the securely primed and insecurely primed participants were asked to retrieve significant memories from their past, while the control condition participants were instructed retrieve a neutral memory that was unlikely to be affectively loaded. Even when thinking of positive memories about our loved ones, a certain level of negative emotion may also accompany that thought. It could be that those in the secure priming condition were thinking of a memory that involved a tragedy, but a safe person in their life comforted them. Additionally, because this study involved college students, many of those who may not be living with their attachment figures, secure memories of their loved ones could have evoked feelings surrounding being apart from their loved one. Although that person they were thinking of was a safe and soothing figure in their life, the circumstances of their specific memory were potentially negatively affectively loaded. Thus, this could be why those in the control condition reported the least amount of negative affect out of the three groups.

Interestingly, the attachment priming also seemed to have a main effect on the GRAT-SF trait gratitude measure that was administered later in the study. While the prime was designed to induce state gratitude, the prime continued to affect participants within the GRAT-SF supplemental measure that occurred well after the manipulation. Even when controlling for participants' incoming level of gratitude, the main effect of the

attachment prime on trait gratitude remained significant. In contrast to the results from

the state gratitude measure, individuals experiencing the control prime actually reported

more trait gratitude than both securely and insecurely primed individuals. In line with the

state measure, insecurely primed individuals reported the least amount of trait gratitude

on the GRAT-SF. One explanation for this finding could be that the effects of the state

measured prime carried over throughout the study, further boosting the securely primed

individual's trait gratitude. If gratitude is a prosocial trait that enhances well-being

(Watkins, 2011), then it could be that simply thinking of memories of a safe and soothing

figure enhanced participants' likelihood of reporting an increased level of trait gratitude

On the other hand, those experiencing the insecure condition may have been experiencing

the effects of the prime with a more defensive or negative disposition, potentially

resulting in inhibited reporting of trait gratitude. Specifically, if participants were

experiencing a negative mood state from the prime, they may have been more likely to

respond to the GRAT-SF in a conservative manner. As discussed in the argument above

for the PANAS hypothesis, the result in higher trait gratitude among the control prime

participants may be due to less affectively laden memories being produced.

Conversely, the GQ-6 trait gratitude measure did not reveal any significant effects

of the attachment prime manipulation. Notably, the GQ-6 and Gratitude for Life Scale

were highly correlated with one another $r(193) = .81$, $p < .001$, which begs the question

as to why the prime would not have an effect on the GQ-6. It is possible that the effects

of the prime had worn off by the time participants answered the affectively loaded

statements on the GQ-6 measure; but even so, if the GQ-6 is truly an indicator of trait

gratitude, the question remains as to why it correlates so directly with a state gratitude

measure. It is also possible that the affectively loaded nature of the GQ-6 statements may have interfered with the participants' reporting of their stable level of gratitude. However, this finding remains unclear and is open for future examination.

While the CLOT measure of cynicism did not reveal any significant findings in regards to the attachment prime, potentially meaningful relationships to other variables in the study were investigated, particularly gratitude. The CLOT appeared to have the strongest negative relationship with trait gratitude measures, such as the GRAT-SF and GQ-6. Conversely, although still correlated, the CLOT had weaker negative relationships with the state gratitude measures in the study. This could be because people who are fundamentally more grateful, report the least amount of cynicism and lack of trust for others in their lives. On the other hand, it is also possible that cynicism inhibits gratitude, and some evidence exists to support this notion (Watkins, Solom, McCurrach, & Hutchison, 2014). This might suggest that grateful people have relationships that are more fulfilling, more trustworthy, and are less likely to have the stable attributes of cynicism. This finding sheds light onto the importance of using gratitude to enhance trust in individuals (Gino & Schweitzer, 2008).

Notably, the CLOT had a moderately positive relationship with the anxious dimension of the ECR-R, but only a rather weak relationship with the avoidant dimension of the ECR-R. One reason for the discrepancy between the dimensions could be that anxious individuals have more cynicism and lack of trust, because they have been hurt by a close relationship in the past; therefore, they have learned to trust less. As suggested by Bowlby (1973), attachment is continuously formed through social experiences with others. It could also be that anxious persons are skeptical of their loved one's intentions,

even though they desire the closeness of a relationship, indeed resulting in increased

personal anxiety. In line with previous research, individuals with higher attachment

anxiety tend to place more emphasis on their own personal distress, rather than that of

others (Joireman et al., 2002). With regards to avoidant individuals, they may not be

bothered by the intentions of others, and so their independence potentially presents as a

protective factor against the qualities of cynicism and lack of trust. Essentially, their

mindset may be that if they never reveal their true feelings, they can never experience

hurt. It may also be that avoidant individuals do not allow themselves to open up fully,

and as a result, they are unable to process the feelings of cynicism or lack of trust, to the

extent that an anxious person would.

As would be expected, the CLOT had a moderately positive relationship with

negative affect. This finding is not surprising because cynicism and lack of trust are

typically deemed as negative personality characteristics and dispositions. Individuals that

identify with the characteristic of cynicism may present with more negative views

towards life, which could affect their moods. Consequently, persons reporting higher

negative affect are more likely to be cynical towards others in their lives. Conversely, it is

of course possible for an individual to be cynical due to their specific life circumstances,

and still present with positive affectivity.

**Limitations and Future Research**

While a definite relationship exists between attachment priming and reported

level of gratitude, future research solidifying a causal connection is necessary. Although

the manipulation check revealed that the priming conditions were generally producing the

intended memories, the question remains as to why the secure and control conditions

revealed similar results overall. It is possible that the control condition was not neutral enough, and that participants were prone to remember acquaintances from class with more positive characteristics, thus resulting in more gratitude and positive affect.

The results from this study provide promising support for the relationship between attachment and gratitude. A more in-depth study format incorporating a true pre-test post-test design might be beneficial for seeing long term effects. Specifically, it may be interesting to group individuals on incoming attachment, as demonstrated by Mikulincer et al. (2011), and categorize participants based on their stable attachment style. That way, researchers could see if the state prime had any effects on manipulating or changing stable attachment patterns. Similarly, participants could be measured more thoroughly on their incoming level of gratitude, and later compared to their state gratitude following the prime. Results may also be clearer if participants were run individually in a lab setting, rather than in group administration format, primarily to enhance perceived anonymity.

Self-report was also a concern in this study, as participants may have responded in a way that they deemed was more socially acceptable. Although the memories from the prime were not coded and read by researchers in this study, it may be that participants thought that they were being evaluated, and felt uncomfortable truly engaging in the writing exercise. Future instructions on this prime may request that individuals write as many details as possible from their specific memory, in order to enhance the effectiveness of the prime in each condition. Speaking to the notion that participants' memories were not coded and read during data collection, it may be beneficial in the future to look at the themes of circumstances, types of figures involved, and style of

language used to describe each participant's memory. This may be a better way to determine if the prime was producing its intended effects, and also what sorts of affective memories participants were reporting.

Lastly, this study sample had limitations in regards to lack of diversity. There were a limited number of males (25.6%) that participated in the study, and the majority of the sample was Caucasian (63.1%). For example, the data may have been different had there been more ethnic and cultural diversity with participants from collectivistic backgrounds, as history suggests that they tend to have a greater appreciation for familial bonds. The sample also did not represent a wide variety of ages. As nearly all of the data was collected from upper-division psychology courses, a broader sample is needed before these results could be generalized to the typical population.

### Conclusions

The implications of this study suggest promising connections for the future of gratitude and attachment research. Prior to conducting this study, correlational research relating common themes between gratitude and attachment styles existed, leaving the area open for investigating causal relationships. By utilizing an experimental design involving an attachment priming procedure, the effects of attachment on state gratitude are essential to demonstrating the causal relationship between these two important life variables. Not only did secure attachment memories appear to significantly enhance state gratitude when compared to insecurely primed participants, insecure attachment memories demonstrated the opposite relationship with the secure and control conditions, supporting the primary hypothesis of this study. While it is still possible that gratitude creates more security as well, it is evident that the compelling association between

attachment security and gratitude potentially plays an important role in enhancing life

satisfaction. Furthermore, my results confirm previous research suggesting that negative

affect, coupled with insecure attachment memories, may actually inhibit the growth of

gratitude. Thus, inhibiting the negative effects that insecure attachment has on close

relationships can be a profound preventative strategy for increasing life satisfaction and

overall well-being.

  As I argued earlier, fostering secure attachment can lead to happier, healthier

future generations, complete with gratitude and increased well-being. The development

of secure attachment may be critical to fostering the growth of gratitude in people, and

thus treatments that target secure attachment might be important for enhancing gratitude,

which should in turn increase happiness. If secure, gratitude-laden relationships hold one

of the many keys to happiness, this might provide the pathway for fulfilling our

fundamental need for relationships. As Marcel Proust recommends,  "Let us be grateful to

people who make us happy; they are the charming gardeners who make our souls

blossom."

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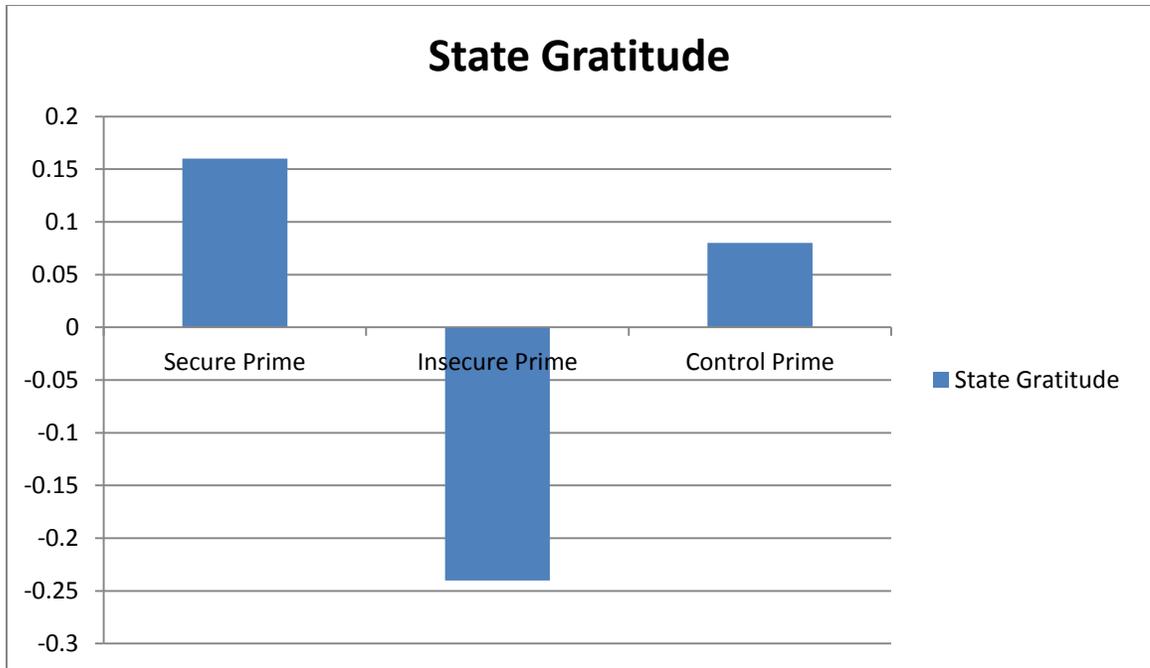
     doi:10.1016/j.jrp.2007.11.003

*Figure 1*. The relationship between the attachment prime and state gratitude. This graph represents the z-scores averaged together from the Gratitude for Life Scale and GAS state measures.
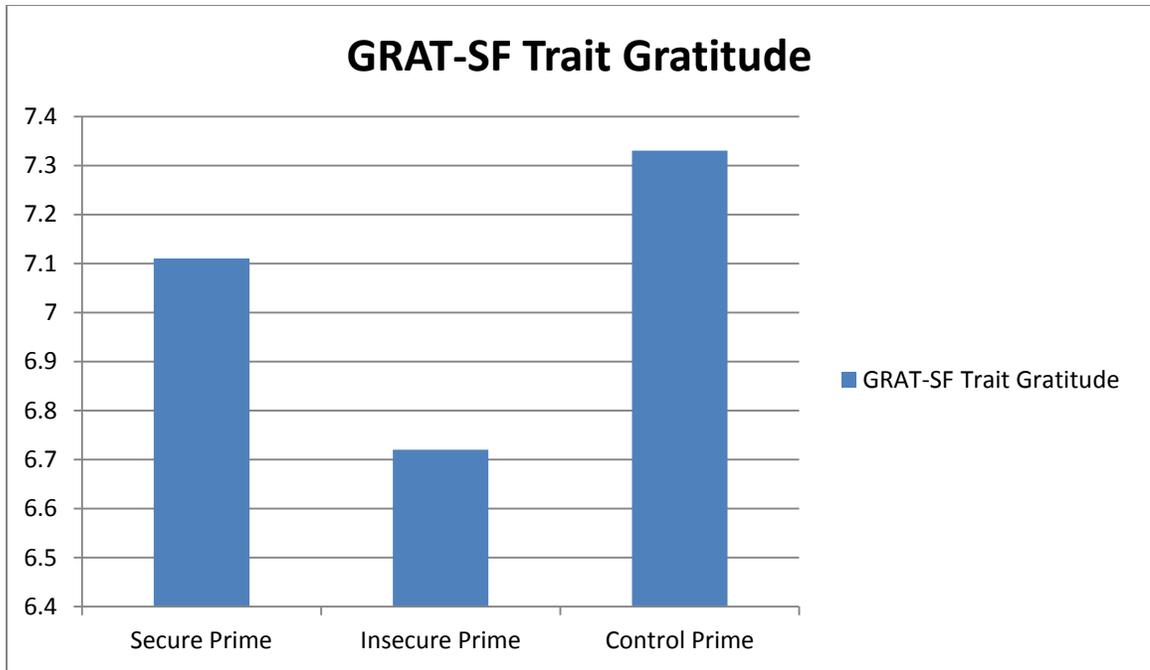
*Figure 2.* The effect of attachment prime on trait gratitude from the GRAT-SF.

Appendix A

*Opinions Questionnaire*

This scale consists of a number of words and phrases that describe different feelings and emotions.  Read each item and then mark the appropriate answer in the space next to that word. Indicate ***to what extent you have felt this way the past few weeks.*** You may omit any question that you prefer not to answer.

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
| **Very slightly or not at all** | **a little** | **moderately** | **quite a bit** | **extremely** |

____ cheerful

____ disgusted

____ attentive

____ bashful

____ sluggish

____ daring

____ surprised

____ strong

____ scornful

____ relaxed

____ irritable

____ delighted

____ inspired

____ fearless

____ disgusted with self

____ sad

____ calm

____ concentrating

____ happy

____ timid

____ blameworthy

____ alone

____ alert

____ upset

____ angry

____ bold

____ blue

____ shy

____ thankful

____ active

____ guilty

____ joyful

____ nervous

____ lonely

____ sleepy

____ excited

____ hostile

____ proud

____ appreciative

____ jittery

____ lively

____ dissatisfied with self

____ determined

____ ashamed

____ at ease

____ scared

____ drowsy

____ angry at self

____ enthusiastic

____ downhearted

____ grateful

____ sheepish

____ distressed

____ frightened

____ astonished

____ interested

____ loathing

____ confident

____ energetic

____ afraid

____ tired

____ amazed

____ shaky

Appendix B

Please circle the number that best represents your agreement/disagreement on the following items. You may omit any question that you prefer not to answer.

1. I would like to see more public phones available in Spokane:

| **1** | **2** | **3** | **4** | **5** |
|---|---|---|---|---|
| **Completely Disagree** | | **Neither agree or disagree** | | **Completely Agree** |

2. Spokane busses carry a lot of people:

| **1** | **2** | **3** | **4** | **5** |
|---|---|---|---|---|
| **Completely Disagree** | | **Neither agree or disagree** | | **Completely Agree** |

3. Typically, there are many people in the PUB:

| **1** | **2** | **3** | **4** | **5** |
|---|---|---|---|---|
| **Completely Disagree** | | **Neither agree or disagree** | | **Completely Agree** |

*Please stop.*

*Please wait for the experimenter to instruct you to turn the page.*

Appendix C
*(Secure Prime)*
Take the next few moments to think about a person in your life that is/was comforting and reassuring to you. Please write their initials in this space _____.


***Please Stop. You may continue to the next task when the experimenter says the time is complete.***


What are six words you would use to describe that person? Please take the next ***minute*** to list them below.
1.
2.
3.
4.
5.
6.


***Please Stop. You may continue to the next task when the experimenter says the time is complete.***


With that same person in mind, imagine a specific memory with them that made you feel like they were a safe and soothing figure in your life. Please take the next ***two minutes*** to write and describe that particular memory with them below.


***Please stop.***
        *Please wait for the experimenter to instruct you to turn the page.*

Appendix D
*(Insecure Prime)*
Take the next few moments to think about a person in your life that is/was inconsistent and unpredictable to you. Please write their initials in this space _____.

***Please Stop. You may continue to the next task when the experimenter says the time is complete.***

What are six words you would use to describe that person? Please take the next ***minute*** to list them below.
1.
2.
3.
4.
5.
6.

***Please Stop. You may continue to the next task when the experimenter says the time is complete.***

With that same person in mind, imagine a specific memory with them that made you feel like they were an unsafe and discomforting figure in your life. Please take the next ***two minutes*** to write and describe that particular memory with them below.

***Please stop.***
     *Please wait for the experimenter to instruct you to turn the page.*

Appendix E
*(Control/Neutral Prime)*
Take the next few moments to think about an acquaintance from class, whom you do not know very well. If you know their initials, please place them in the space provided. Otherwise, make up two initials _____.


***Please Stop. You may continue to the next task when the experimenter says the time is complete.***


From the few interactions you've had with them, what are six words you would use to describe that person? Please take the next ***minute*** to list them below.

      1.
      2.
      3.
      4.
      5.
      6.


***Please Stop. You may continue to the next task when the experimenter says the time is complete.***


With that same person in mind, imagine a specific memory from class with them that stands out to you. Please take the next ***two minutes*** to write and describe that particular memory with them below.


***Please stop.***
      *Please wait for the experimenter to instruct you to turn the page.*

Appendix F

Below are five statements with which you may agree or disagree. Using the scale below, indicate your agreement with each item by placing the appropriate number on the line preceding that item. Please be open and honest in your responding, and answer the statements according to ***how you feel right now.*** You may omit any question that you prefer not to answer.

**1 = Strongly disagree**
**2 = Disagree**
**3 = Slightly disagree**
**4 = Neither agree nor disagree**
**5 = Slightly agree**
**6 = Agree**
**7 = Strongly agree**


_____1.  At this moment, I feel thankful for my life.

_____2.  Right now, as I think about the big picture of my life, I feel very
      grateful.

_____3.  Considering all that has happened in my life, I feel very appreciative for
      my life.

_____4.  I have so much in life to be thankful for.

_____5.  Right now, there a lot of people that come to mind who I am grateful for.

Appendix G
This scale consists of a number of words that describe different feelings and emotions. Read each item and then mark the appropriate number in the space next to that word. Indicate to what extent ***you feel that way right now, that is, at the present moment***, *not* necessarily how you feel generally or how you feel on average. Use the following scale to record your answers. You may omit any question that you prefer not to answer.

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
| **very slightly or not at all** | **a little** | **moderately** | **quite a bit** | **extremely** |

| | | | |
|---|---|---|---|
| ____ interested | | ____ irritable | |
| ____ distressed | | ____ alert | |
| ____ grateful | | ____ ashamed | |
| ____ excited | | ____ inspired | |
| ____ upset | | ____ thankful | |
| ____ strong | | ____ nervous | |
| ____ guilty | | ____ determined | |
| ____ scared | | ____ attentive | |
| ____ appreciative | | ____ jittery | |
| ____ hostile | | ____ active | |
| ____ enthusiastic | | ____ afraid | |
| ____ proud | | | |

Appendix H
***Please take a moment to reflect back to the person you thought about and described earlier***.
Using the scale below, please read each statement and select a number that best describes your
agreement/disagreement with that statement, as it applies to the person you had in mind. Please
place that number on the preceding line of the item. You may omit any question that you prefer
not to answer.

**1 = Strongly disagree**
**2 = Disagree**
**3 = Slightly disagree**
**4 = Neither agree nor disagree**
**5 = Slightly agree**
**6 = Agree**
**7 = Strongly agree**

_____ 1. I know this person very well.


_____ 2. Right now, I feel close in my relationship with this person.

Appendix I

The statements below concern how you feel in emotionally intimate relationships. We are interested in how you *generally* experience relationships, not just in what is happening in a current relationship. Write a number beside each statement using the scale below to indicate how much you agree or disagree with the statement. You may omit any question that you prefer not to answer.

**1 = Strongly disagree**
**2 = Disagree**
**3 = Slightly disagree**
**4 = Neutral**
**5 = Slightly agree**
**6 = Agree**
**7 = Strongly agree**

____1. I'm afraid that I will lose my partner's love.

____2. I often worry that my partner will not want to stay with me.

____3. I often worry that my partner doesn't really love me.

____4. I worry that romantic partners won't care about me as much as I care about them.

____5. I often wish that my partner's feelings for me were as strong as my feelings ` for him or her.

____6. I worry a lot about my relationships.

____7. When my partner is out of sight, I worry that he or she might become interested in someone else.

____8. When I show my feelings for romantic partners, I'm afraid they will not feel the same about me.

____9. I rarely worry about my partner leaving me.

____10. My romantic partner makes me doubt myself.

____11. I do not often worry about being abandoned.

____12. I find that my partner(s) don't want to get as close as I would like.

____13. Sometimes romantic partners change their feelings about me for no apparent reason.

____14. My desire to be very close sometimes scares people away.

____15. I'm afraid that once a romantic partner gets to know me, he or she won't like who I really am.

____16. It makes me mad that I don't get the affection and support I need from my partner.

____17. I worry that I won't measure up to other people.

____18. My partner only seems to notice me when I'm angry.

____19. I prefer not to show a partner how I feel deep down.

____20. I feel comfortable sharing my private thoughts and feelings with my partner.

____21. I find it difficult to allow myself to depend on romantic partners.

____22. I am very comfortable being close to romantic partners.

____23. I don't feel comfortable opening up to romantic partners.

____24. I prefer not to be too close to romantic partners.

____25. I get uncomfortable when a romantic partner wants to be very close.

____26. I find it relatively easy to get close to my partner.

____27. It's not difficult for me to get close to my partner.

____28. I usually discuss my problems and concerns with my partner.

____29. It helps to turn to my romantic partner in times of need.

____30. I tell my partner just about everything.

____31. I talk things over with my partner.

____32. I am nervous when partners get too close to me.

____33. I feel comfortable depending on romantic partners.

____34. I find it easy to depend on romantic partners.

____35. It's easy for me to be affectionate with my partner.

____36. My partner really understands me and my needs

Appendix J
Using the scale below as a guide, write a number beside each statement to indicate how much you agree with it. You may omit any question that you prefer not to answer.

**1 = Strongly disagree**
**2 = Disagree**
**3 = Slightly disagree**
**4 = Neutral**
**5 = Slightly agree**
**6 = Agree**
**7 = Strongly agree**

____1. I have so much in life to be thankful for.

____2. If I had to list everything that I felt grateful for, it would be a very long list.

____3. When I look at the world, I don't see much to be grateful for.

____4. I am grateful to a wide variety of people.

____5. As I get older I find myself more able to appreciate the people, events, and situations that have been part of my life history.

____6. Long amounts of time can go by before I feel grateful to something or someone.

Appendix K
Please provide your honest feelings and beliefs about the following statements which relate to you. There are no right or wrong answers to these statements. We would like to know how much you feel these statements are true or not true of you. Please try to indicate your true feelings and beliefs, as opposed to what you would like to believe. Respond to the following statements by writing in the number that best represents your real feelings. Using the scale provided below, please choose one number for each statement, and record your choice in the blank preceding each statement. You may omit any question that you prefer not to answer.

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|
| **I strongly disagree with the statement** | | **I disagree somewhat with the statement** | | **I feel neutral about the statement** | | **I mostly agree with the statement** | | **I strongly agree with the statement** |

_____ 1.        I couldn't have gotten where I am today without the help of many people.

_____ 2.        Life has been good to me.

_____ 3.        There never seems to be enough to go around and I never seem to get my share.

_____ 4.        Oftentimes I have been overwhelmed at the beauty of nature.

_____ 5.        Although I think it's important to feel good about your accomplishments, I think that it's also important to remember how others have contributed to my accomplishments.

_____ 6.        I really don't think that I've gotten all the good things that I deserve in life.

_____ 7.        Every Fall I really enjoy watching the leaves change colors.

_____ 8.        Although I'm basically in control of my life, I can't help but think about all those who have supported me and helped me along the way.

_____ 9.        I think that it's important to "Stop and smell the roses."

_____ 10.       More bad things have happened to me in my life than I deserve.

_____ 11.       Because of what I've gone through in my life, I really feel like the world owes me something.

_____ 12.       I think that it's important to pause often to "count my blessings."

_____ 13.       I think it's important to enjoy the simple things in life.

_____ 14.       I feel deeply appreciative for the things others have done for me in my life.

_____ 15.       For some reason I never seem to get the advantages that others get.

_____ 16.       I think it's important to appreciate each day that you are alive.

Appendix L

Please respond to the following items for how ***you have been feeling recently about those around you***. There are no right or wrong answers, simply provide your most honest response. Select and write in the number that best represents your agreement/disagreement with each item on the blank line preceding the statement. You may omit any question that you prefer not to answer.

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|
| **Strongly Disagree** | | **Disagree** | | **Neutral** | | **Agree** | | **Strongly Agree** |

\_\_\_\_\_ 1. Lately, I have found that is has been easier to trust others.

\_\_\_\_\_ 2. When I think about the people I know, most of them can be trusted.

\_\_\_\_\_ 3. The people I know in my work, school, and social life are largely just out for themselves.

\_\_\_\_\_ 4. The people in my life are good people.

\_\_\_\_\_ 5. Recently, people have been taking advantage of me.

\_\_\_\_\_ 6. I would be making a lot more progress towards my goals if the people in my life could be more supportive.

\_\_\_\_\_ 7. Recently, I've noticed that the people in my life have been exceptionally good to me.

\_\_\_\_\_ 8. Lately, I've noticed that when others do something for me they often have ulterior motives.

\_\_\_\_\_ 9. I'm really glad for the family that I have.

\_\_\_\_\_ 10. Although they won't say it to my face, I believe that lately people have been criticizing me behind my back.

\_\_\_\_\_ 11. When someone helps me in the store they're just trying to get me to buy something.

\_\_\_\_\_ 12. When I think about what others have done for me recently, I'm amazed at how good they have been to me.

\_\_\_\_\_ 13. Lately, I've noticed how selfish people are.

\_\_\_\_\_ 14. I think that I give more to others than they give to me.

\_\_\_\_\_ 15. Recently, I have noticed that my family has been very supportive of me.

\_\_\_\_\_ 16. When I'm in the express checkout line at the grocery store, I usually look to see if the people in front of me have more than 15 items.

\_\_\_\_\_ 17. For some reason, lately I've noticed that people have been trying to impede my success.

\_\_\_\_\_ 18. Of the people I know, most would cheat on a test if they knew they wouldn't get caught.

\_\_\_\_\_ 19. Lately, I have noticed how kind people have been to me.

\_\_\_\_\_ 20. I think that people could care less about how I'm really doing.

\_\_\_\_\_ 21. Most people I know are really concerned for me as a person.

\_\_\_\_\_ 22. I'm really glad for the friends that I have.

\_\_\_\_\_ 23. Recently I have noticed that my friends have been very supportive of me.

Appendix M
Please respond to the following items to the best of your ability. You may omit any question that
you prefer not to answer.


Age: _____ years old                          Year in School   Fr   So   Jr   Sr

Gender: ___M     ___F

Race or Ethnicity: _____ (feel free to not declare)

Approximate Income of **Parents** last year (combined; please check the blank that represents your
best estimate):

___0-5,0000     ___5,000-10,000        ___11,000-20,000            ___21,000-30,000

___31,000-40,000       ___41,000-50,000        ___51,000-75,000       ___76,000-100,000

___101,000-150,000             ___151,000-200,000            ___Greater than 200,000

Approximate **Personal Income** (what you earned through various jobs; please check the blank
that represents your best estimate):

___0-5,0000     ___5,000-10,000        ___11,000-20,000            ___21,000-30,000

___31,000-40,000       ___41,000-50,000        ___51,000-75,000       ___76,000-100,000

___101,000-150,000             ___151,000-200,000            ___Greater than 200,000

Appendix N

# Study Description

This is a study that intends to investigate how people view statements about their personality. This study will help us obtain information about the relationship between various personality traits. This study will be beneficial to you by helping you gain greater knowledge about yourself.

*Procedures*
In this study you will be asked to complete a packet of questionnaires. The total time required to complete these questionnaires should not exceed an hour. The questionnaires being administered ask you various questions about your current feelings and opinions on issues, for example, how much you agree with the statements, "I worry that I won't measure up to other people," "I think it's important to enjoy the simple things in life," and "More bad things have happened to me in my life than I deserve." This study may also require participants to briefly think of memories from their past.

*Risk, Stress, or Discomfort*
This experiment involves little or no risk to your emotional or physical well-being, and involves less than minimal risk to your well-being. Completing all of the questionnaires in full may be somewhat lengthy and you may find this to be tiring. Your participation in this experiment is confidential. You may find that some questions relate to sensitive issues, however, remember that all of your responses are confidential, and there will be no way we will be able to connect your responses to your identity.  You may choose not to answer any question that you find objectionable. You will receive class credit for your participation, but please remember that participation is voluntary, and there are additional ways for you to obtain extra credit other than research participation. Access to information is restricted to the principal investigator, the responsible project investigator, and their research assistants. Participation in this study indicates your consent. Information from this study will be used for thesis research. You may choose to withdraw from participation in this study at any time.

Do you have any questions about this study? If so, please contact the principal investigator, Jessica Konkler, at jkonkler@eagles.ewu.edu / (509) 995-5737 and/or the responsible project investigator, Philip Watkins, at pwatkins@ewu.edu / (509) 359-6174.

If you have any concerns about your rights as a participant in this research or any complaints you wish to make, you may contact Ruth Galm, Human Protections Administrator at Eastern Washington University (509-359-7971/6567) <rgalm@ewu.edu>.

Vita

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# Jessica G. Konkler
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*EDUCATION*

**2012 – 2014**      *Master of Science Graduate Program – Clinical Psychology*
Eastern Washington University
- **GPA: 3.96**
- Research/Thesis Interests: Gratitude and Attachment Styles

**2009 – 2012**      *Bachelor of Arts – Psychology*
Eastern Washington University
- **GPA: 3.92**, Graduated *Summa Cum Laude*

**2008 – 2009**      *Undergraduate Studies – Transferred*
Gonzaga University

**2004 – 2008**      *High School Diploma*
Orting High School
- **GPA: 3.86**

*WORK EXPERIENCE*

**2013 – Present**      **Children's Home Society**
2323 N. Discovery Place. Spokane Valley, WA 99216

*Clinical Masters Level Intern – April 2013 – Present*
- Provide children and families with counseling services, under routine supervision of clinical staff and supervision through the university.
- Assist licensed clinicians and independently facilitate various types of Group Therapy
- Complete paperwork requirements in a timely manner and to the standards of the RSN
- Promote advocacy for all children

**2014 – Present**      **Twigs Bistro and Martini Bar**
4320 S. Regal St. Spokane, WA 99223

*Server / Bartender*
- Ability to incorporate multi-tasking skills in a fast-paced environment
- Demonstrate knowledge about the menu and actively inform guests of suggestions, specials and promotions
- Provide excellent food and beverage hospitality

**2008 – 2014**     **Owl Club Casino, LLC.**
16208 E. Indiana Ave. Spokane Valley, WA 99216

*Shift Manager / Certified Corporate Trainer / International Training Coordinator / Bartender*
- Led wait-staff and co-managed the floor as a Shift Manager and International Training Coordinator
- Enthusiastically trained new employees and served as a mentor
- Responsible for keeping paperwork, employee files, and documentations organized and updated
- Coordinator for projects, promotions, and fundraisers

**2006 – 2008**     **McDonald's**
321 Washington Ave N. Orting, WA 98360

*Area Manager / Food Service Trainer*
- Successfully managed grill and service areas
- Delegated tasks and handled customer affairs
- Trained new employees in a fast-paced environment
- Held various managerial positions regarding opening, closing, scheduling, money management, and shift preparation

## CLINICAL SKILLS AND CONTINUING EDUCATION

**2013 – 2014**     **Play Therapy, Art Therapy, and Sand Tray Training** – Trained both in the classroom setting and in the field at practicum internship, working with children and adolescents

**2013 - 2014**     **Administration Experience with Psychological Testing** – Trained in administration of WAIS-IV, WMS, WCJ-III, Stanford Binet, MMPI-2, NEO-PI-R, and TAT psychological tests through supervision from the university

**2013**     **TF-CBT** – Certification of Completion in online training course for Trauma-Focused Cognitive-Behavioral Therapy, 10 CE hours

**2013**     **CTG** – Certification of Completion in online training course for Childhood Traumatic Grief, 6 CE hours

## AWARDS & SCHOLARSHIPS

*Dean's List – 2009-Present*
Recipient each quarter enrolled – Eastern Washington University

*Trustees Scholarship – 2010-2012*

Board of Trustees – Eastern Washington University

***Dean's List – 2009***
Recipient Spring semester – Gonzaga University

***Dussault Scholarship – 2008-2009***
Gonzaga University

***OASF in Memory of Donald & Barbara Kendall Scholarship – 2008***
Orting Alumni Scholarship Foundation – Orting High School

***Fuchs-Harden Educational Fund Scholarship – 2008***
The Greater Tacoma Community Foundation – Orting High School

***Vernon C. Tullis Memorial Scholarship – 2008***
Valley Masonic Lodge of Orting, WA – Orting High School

***Charles & Mazie Van Scoyoc Educational Foundation Scholarship – 2008***
Van Scoyoc Educational Foundation – Orting High School

***Honor Roll Award – 2004-2008***
Recipient each semester – Orting High School

<u>*ACADEMIC MEMBERSHIPS*</u>

***Research Lab Member – 2012-Present***
Gratitude and Positive Psychology Thesis Research – Eastern Washington University

***Phi Kappa Phi Member – 2012-Present***
Honor Society Organization – Eastern Washington University

***Sigma Alpha Lambda Member – 2010-Present***
National Leadership and Honors Organization – Eastern Washington University

***Yearbook Staff Member – 2004-2008***
*Editor-in-Chief (2006-2008); Co-Editor (2004-2006)* – Orting High School

***National Honor Society Member – 2005-2008***
*Chapter President (2007-2008)* – Orting High School

***Future Business Leaders of America – 2006-2008***
*Chapter Secretary (2007-2008)* – Orting High School