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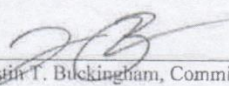
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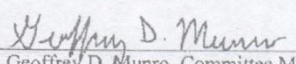
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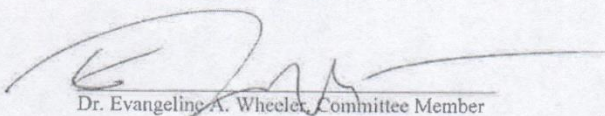
This is to certify that the thesis prepared by Tiffany Lam entitled "Counteracting the Consequences of Defensive Self-Esteem with Self-Affirmation" has been approved by the thesis committee as satisfactorily completing the thesis requirements for the degree Master of Arts.


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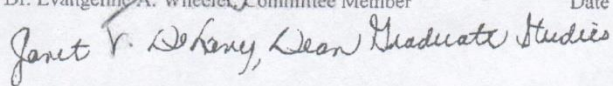
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Abstract

Individuals with defensive self-esteem are characterized as having high explicit levels of self-esteem but low implicit levels of self-esteem. They tend to rely on self-enhancement more heavily for promoting positive self-views than do individuals with secure HSE, who in contrast exhibit high levels of both explicit and implicit self-esteem. The overreliance on self-enhancement observed among defensive HSEs suggests that these individuals engage in greater use of defensive processes, which can lead to maladaptive functioning. In the current study I suggest that inducing self-affirmation among defensive HSEs can serve as an especially beneficial tool to reduce their use of defensive processes. In contrast, inducing self-affirmation among secure HSEs was expected to show no additional effects in their use of defensive processes, assuming that they engage in self-affirmation in their everyday lives to regulate their level of self-esteem. However, this hypothesis was not supported by the current study.

Keywords: Defensive self-esteem, self-enhancement, ostracism, implicit self-esteem, self-affirmation

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Counteracting the Consequences of Defensive Self-Esteem with Self-Affirmation

For decades, high self-esteem (HSE) has been championed as the hallmark of psychological well-being and as an important factor in future success and happiness. From talk shows to elementary school programs, society promotes feeling good about oneself in order to achieve positive outcomes in one's life. Though people are motivated to maintain favorable views of themselves (Alicke & Sedikides, 2011), the benefits derived from HSE have been the subject of debate among psychologists (Baumeister, Campbell, Krueger & Vohs, 2003; Twenge & Campbell, 2009). This has led researchers to examine whether different types of HSE exist (Kernis, Cornell, Sun et al., 1993; Lobel & Teiber, 1994; Crocker, 2001), and if so, whether some types are more healthy and adaptive than others (Kernis, Cornell, Sun et al., 1993; Lobel & Teiber, 1994; Crocker, 2001).

At the present, self-esteem (SE) researchers distinguish between secure SE and fragile HSE (Kernis, 2008). People with secure SE accept themselves as they are. They are capable of acknowledging their shortcomings as well as their good qualities without suffering a loss in their overall sense of self-worth. In contrast, people with fragile HSE are not as immune to attention towards their shortcomings. Thus, their feelings of self-worth are transient and depend on external events to "provide proof" of the person's value. One subtype of fragile HSE, defensive SE (Lobel and Teiber, 1994), is the focus of this paper. Defensive SE has been linked to a number of negative behavioral outcomes, such as aggression in childhood (Sandstrom & Jordan, 2008) and poor self-regulation after a threat to one's self-views (Lambird & Mann, 2006). Thus, it is

important for psychologists to investigate the ways in which defensive SE functions differently from secure SE.

First, I will discuss what defensive SE is and how it is measured by psychologists. Second, I will describe research showing how defensive SE manifests itself in excessive use of *self-enhancement* strategies. Self-enhancement refers to ways in which a person attempts to boost their SE after a threat or ways in which a person attempts to prevent threats from challenging their positive self-views (Alicke & Sedikides, 2011). Then, I will discuss a particular self-enhancement strategy, downplaying social approval, and how it relates to defensive and genuine HSE. Finally, I will focus on self-affirmation, a process that has been shown to reduce defensiveness, and explain how it could be especially beneficial for individuals with defensive HSE.

Individuals with defensive HSE express positive attitudes about themselves; yet they harbor negative feelings about themselves of which they are usually not consciously aware (Lobel & Teiber, 1994). Given the nature of defensive SE, comparison of explicit and implicit measures of SE has played a vital role in the literature. *Explicit SE* is characterized by a rational, controlled process through which people evaluate themselves (Greenwald and Farnham, 2000). In other words, explicit SE requires conscious reflection upon one's abilities and attributes. For example, when considering how attractive they are, a person might think about instances when their appearance was complimented by others and then decide.

In contrast, *implicit SE* is an automatic feeling that people have about themselves. It is based not on deliberate thought, but on overlearned responses to the self that are acquired before the development of self-awareness (Greenwald & Banaji, 1995). Explicit

and implicit SE measures vary from study to study, but researchers distinguish secure SE from defensive SE in the same manner. Those who score high on both explicit and implicit SE are categorized as having secure SE. Their subconscious feelings about themselves match the positive attitudes they express on self-reports. In contrast, those who score high in explicit SE but low in implicit SE are categorized as having defensive HSE. Though they report feeling good about themselves, their responses on an implicit SE measure suggest that they have negative feelings towards objects and concepts linked to themselves.

Measuring Explicit and Implicit Self-Esteem

The most common explicit self-esteem measure used is the Rosenberg Self-Esteem Scale (RSES; Rosenberg, 1965). This scale is known among researchers to be a highly reliable and valid self-report of one's self-esteem (Baumeister et. al, 2003) and includes statements such as, "On the whole, I am satisfied with myself". Participants indicate their responses from 1 (*strong disagree*) to 4 (*strongly agree*). Another explicit self-esteem measure that has been used by researchers is the Self-Liking and Self-Competence Scale designed by Tafari and Swann (2001). Unlike the Rosenberg scale (Rosenberg, 1965), which assesses a global sense of self-regard, this scale distinguishes between two types of attitudes people give themselves. Self-liking measures how much positive affect they have for themselves and includes items such as, "I am very comfortable with myself". Self-competence measures how favorably they view their abilities and includes statements such as, "I perform very well at many things". Responses to these items are indicated on a scale from 1 (*Strongly disagree*) to 5 (*Strongly agree*).

In contrast, one common implicit measure is the Self-Esteem Implicit Association Test (SE-IAT) developed by Greenwald and Farnham (2000). The SE-IAT records reaction time and accuracy during a categorization task, and these measures are used to determine how strong a person's association is between themselves and positive words (Greenwald & Farnham, 2000). Participants complete this task in five steps on a computer. They respond by pressing a left or right key assigned to the categories. In the first step, participants sort words into two categories (self-related or other-related). In the second step, participants sort words into two different categories (pleasant or unpleasant). In the third step, all four categories combine into two and participants press the same response key when they see self-words or pleasant-words, and another key when they see other-words or unpleasant-words. In the fourth step, the keys assigned to pleasant and unpleasant words during the third step are switched, and the participants practice learning the new responses for each category. The final step of the IAT is the same as the third step, except for the key switch between pleasant and unpleasant words.

IAT scores are then computed by subtracting participants' average response latencies in milliseconds during the third step from their average response latencies during the fifth step. People with high implicit SE have faster reaction times when pairing positive words with self-words than when pairing negative words with self-words. This indicates a positive bias towards oneself. On the other hand, people with low implicit self-esteem have slower reaction times when pairing positive words with self-words than when pairing negative words with self-words. High implicit SE scores, then, are indicated by a more positive difference between averaged reaction times, whereas low implicit SE

scores are indicated by a negative or less positive difference between averaged reaction times.

Another common implicit measure is the Name-Letter Technique (NLT; Nuttin, 1987). Participants rate their attitude towards each letter of the alphabet on a Likert scale (1 = *Not at all*, 7 = *Very much*). Implicit SE is then determined by the degree of preference participants have for their own initials. Higher ratings for one's initials compared to the average of ratings that other people give the same letters suggests an implicit positive attitude towards the self. In contrast, lower ratings for one's initials compared to the average of ratings that other people give the same letters suggest a negative implicit attitude towards the self. However, regardless of the type of implicit self-esteem measure used, secure self-esteem and defensive self-esteem are characterized in the same manner. Secure self-esteem refers to having both high explicit and implicit self-esteem, whereas defensive self-esteem refers to having high explicit self-esteem but low implicit self-esteem.

Self-Enhancement among Defensive HSEs

The majority of Americans report having HSE; even those classified as having low self-esteem score above the midpoint of the scale on self-reports and therefore score low only in relative terms (Baumeister et. al, 2003). Most people also rate themselves as better than the typical person on a variety of traits (e.g., creative, loyal, perceptive; Alicke, 1985). It is not surprising, then, that most people with HSE engage in self-enhancement to an extent (Alicke & Sedikides, 2011). Nevertheless, defensive HSEs rely on these strategies more heavily than secure SEs do (Jordan, Spencer, Zanna et al., 2003). With the exception of a few findings mentioned in this review, the following

studies demonstrated that people with defensive SE employ self-enhancement strategies to a greater degree than people with secure SE.

Jordan et al. (2003) examined in-group bias (Study 2) and cognitive dissonance reduction (Study 3) as self-enhancement strategies among defensive SEs. In both studies, participants completed the RSES during a prescreening and completed the SE-IAT in the lab. In Study 2, 43 students participated in the minimal group paradigm (Tajfel, Flament, Billig, and Bundy, 1971). Participants saw three displays of dots on a computer screen and guessed how many dots they saw each time. Unbeknownst to them, the experimenter randomly assigned them to the underestimator group or overestimator group. All participants learned that they were “#81 of Group Blue” (Tajfel et al., 1971) and received dependent measure packets that were labeled similarly. The experimenter then instructed them to give points to members of both groups, mentioning that the points would be used to pick the winner of a prize later in the semester. Degree of in-group bias was measured by the amount of points given to participants’ own group versus the other group. People with defensive HSE exhibited significantly greater in-group bias than people with genuine HSE did.

In Study 3, 33 college students (17 male, 16 female) participated in what was ostensibly a decision-making task the lab had organized with the owners of a Chinese food restaurant. Participants first chose their 10 favorite meals from a menu of 25, and then ranked them from most preferred to least preferred. They also rated the 10 meals based on how much they wanted to order them. Participants then chose between a gift certificate for their 5th favorite meal or a gift certificate for their 6th favorite meal, as the experimenter explained that their most preferred meals would not be on the menu. This

served to create an internal conflict between what students said they preferred and what they chose. The experimenter then left the room for 10 minutes to give students time to justify their choices. Afterwards, participants rated the 10 meals again, indicating how much they enjoyed each one. Cognitive dissonance reduction was measured by comparing pre and post-choice ratings of the 10 meals. Consistent with Studies 1 & 2, defensive HSEs exhibited stronger tendencies than secure SEs to engage in self-enhancement. Specifically, defensive HSEs showed greater liking for their chosen meals and greater disliking for their non-chosen meals relative to secure HSEs. It is important to note that Jordan et al. (2003) did not directly manipulate self-threat in either of their studies. However, defensive HSEs still responded in a defensive manner, suggesting that defensive HSEs are more likely than secure SEs to construe events as threats to their self-image.

Whereas Jordan et al. (2003) used indirect methods to induce self-threat, Borton, Crimmins, Ashby and Ruddiman (2012) took a direct approach by using negative feedback. The researchers used the SE-IAT to determine implicit SE levels and the RSES to determine explicit SE levels. Seventy-seven university students participated in this study. After completing these measures, they worked on a series of verbal and mathematical problems found in the Graduate Records Examination (GRE) and the Law School Admissions Test (LSAT). All participants received bogus feedback indicating that they ranked in the 43rd percentile, performing worse than the majority who did the same task. The participants then engaged in a verbalization task (Kelly & Khan, 1994), talking for five minutes about whatever they were thinking and tape-recording what they

said. Afterwards, they answered 10 items addressing the thought-control strategies they used during the verbalization task.

The items measured three strategies: suppression of test-related thoughts, self-punishment for test-related thoughts (taken from the Thought-Control Questionnaire by Wells and Davies, 1994) and minimization of the test's importance. Participants indicated each response on a scale from 1 (*never*) to 5 (*very often*), except for the last thought-suppression item that required them to rate from 0 (*not at all*) to 100 (*tried very hard*) how much they attempted suppression. Among participants with high explicit SE, those with low implicit SE (i.e., defensive HSEs) reported more thought suppression than those with high implicit SE (i.e., secure HSEs). Defensive SE was also associated with self-directed punishment/anger for test-related thoughts. Contrary to the hypothesis, defensive self-esteem was not predictive of minimizing the importance of test performance. Nevertheless, defensive HSEs in this study engaged in self-enhancement in other ways: Not only did they push away threatening thoughts related to their test performance, but they punished themselves for allowing threatening thoughts to surface, presumably to avoid unpleasant self-reflection.

Similar to Jordan et. al's (Study 2; 2003) and Borton et. al's (2012) studies, Bosson, Brown and Zeigler-Hill (2003) investigated additional self-enhancement tools used heavily by defensive HSEs: unrealistic optimism and biased judgments of self-relevant information. In Study 1, 116 participants completed Weinstein's (1980) Unrealistic Optimism Scale which prompted them to indicate the probability that, compared to others, five positive experiences (i.e. liking their job) and five negative experiences (i.e. developing a drinking problem) would occur in their lifetime. Then they

read four personality profiles ranging from very uncomplimentary to very complimentary that were supposedly generated by clinical graduate students. Instructions prompted participants to read each profile “as if it had been written about you” (Bosson et. al, 2003). Then they rated how accurately each profile described themselves by indicating their responses on a scale from 1 (*not at all*) to 11 (*very much*). Prior to their participation, they completed the 10-item Self-Liking subscale of the SLSC and the NLT during a prescreening.

Results indicated that participants who scored high in self-liking but low in initial-preference (i.e., defensive HSEs) reported excessive optimism for their future compared to participants who scored high in self-liking and initial-preference (i.e., secure HSEs). Furthermore, defensive HSEs perceived the very flattering profile as more characteristic of themselves than secure HSEs did. Interestingly, defensive HSEs did not rate the profile as less accurate than secure HSEs did when it was moderately or very unflattering. Bosson et. al (2003) attributed this finding to the conclusion in prior research that HSEs maintain their self-views by paying attention to their positive qualities rather than preventing thoughts about negative qualities (e.g., Baumeister, Tice, & Hutton, 1989; Sommer, 2001; Tice, 1991).

The studies mentioned thus far have largely focused on ways in which defensive HSEs rely on self-enhancement strategies that are cognitive in nature. In Study 2, Kernis, Lakey, and Heppner (2008), demonstrated that defensive SEs also self-enhance through behavioral means. The behavior of interest in this study was verbal defensiveness. Verbal defensiveness occurs during discussion of a negative experience, and is characterized by the following criteria: Refuting awareness of conflicting emotional

states, shifting blame onto others for the event, and distorting details about the event (Feldman Barrett, Cleveland, Conner, & Williams, 2000).

One-hundred one college students participated in the study. Kernis et al. (2008) measured explicit SE using the RSES (Rosenberg, 1965) and assessed implicit SE with the NLT (Nuttin, 1987). Several weeks later, participants returned for an interview conducted using the Defensive Verbal Behavior Assessment (DVBA; Feldman-Barrett et al., 2000). The DVBA was designed to elicit mild discomfort among interviewees (e.g., “Tell me about a time when you felt that your parents were really disappointed in you”). Raters then listened to the recorded interviews and scored each of the 15 items from 0 (*low defensiveness*) to 3 (*high defensiveness*) based on the criteria set by Feldman-Barrett et al. (2000). Results showed that HSEs with low implicit SE (i.e., defensive HSEs) were more verbally defensive than HSEs with high implicit SE (i.e., secure HSEs).

HSE and Downplaying Social Approval

Surprisingly, there is little research on how defensive SEs use self-enhancement strategies in an interpersonal context. Some recent data on how HSEs react to social threat, however, suggests that people with explicit HSE tend to reduce the importance of social approval afterwards, presumably to maintain positive views of themselves (Buckingham, Sypher and Weber, 2012; Buckingham, Emery & Montague, 2012). In a study conducted by Buckingham, Sypher and Weber (2012), participants with high self-esteem wrote an essay on either past experiences of (a) being ignored, (b) rejected, or (c) accepted by others. Participants in the control group did not write an essay. Afterwards, they all completed Contingencies of Self-Worth Scale items on social

approval, appearance, academic performance and virtue (Crocker, Luhtanen, Cooper & Bouvrette, 2003).

Contingencies of self-worth (CSW) refer to particular domains upon which a person bases their self-esteem. Most research on CSWs has focused on how successes and failures in domains relevant to oneself affect subsequent self-esteem (Crocker and Wolfe, 2001; Crocker et al., 2003). In Buckingham, Sypher and Weber's (2012) study, however, CSWs were measured as outcomes dependent upon pre-existing self-esteem and threats to the self. The researchers proposed that after encountering an ego threat in a particular domain, such as a social threat, HSEs counteract this threat by minimizing the significance of the domain to their overall self-worth. In other words, the threat loses its potential to lower one's feelings of self-worth if an individual dismisses the domain as irrelevant to how they feel about themselves.

Results from Study 1 indicated that HSEs who had recalled being ignored or rejected reported lower scores on social approval CSW relative to the control group. Moreover, this effect was not observed among participants who reported low self-esteem (LSE). This suggests that minimizing the impact social acceptance has on one's self-esteem is a way in which those with explicit HSE enhance their self-views. Study 3 provided further evidence of the link between CSWs and self-views. Female participants watched a series of television commercials under the guise that they were involved in a consumer study. In the experimental condition, some of the commercials featured attractive models, thus presenting an appearance threat. Participants then indicated how much their self-worth depended on their physical appearance. Lastly, participants indicated the degree to which they were dissatisfied with their bodies. Similar to Study 1,

those with explicit HSE responded to the appearance threat by lowering the importance they placed on attractiveness as a standard to meet for feeling good about themselves. More importantly, lowering their appearance CSW mediated the effect of threat on their levels of body dissatisfaction. Specifically, those with HSE reported lower levels of body dissatisfaction after the threat compared to the control group. This suggests that modifying one's CSWs is a way for individuals with HSE to maintain desirable self-views.

It is important to note that neither Buckingham, Sypher and Weber (2012) nor Buckingham, Emery and Montague (2012) measured implicit SE in their studies. It is possible that defensive HSE accounted for the differences in reported CSWs between those low versus high in self-liking. The reason for this is that reducing CSW could be yet another self-enhancement strategy that defensive HSEs rely on to feel good about themselves. Because defensive HSEs are more dependent on self-enhancement than genuine HSEs are, this pattern should be reflected in their reactions to experiences of social exclusion. Unpublished data on the impact of social exclusion on those with defensive HSE suggests this is the case (Buckingham & Lam, 2014).

This greater dependence on self-enhancement for maintaining positive feelings towards oneself can be problematic in the long-run, both for the person with defensive self-esteem and for those who interact with them. People with defensive self-esteem tend to have more unrealistic optimism regarding their futures compared to those with secure self-esteem (Haddock & Gebauer, 2011). This is an issue for defensive HSEs given that unrealistic optimism is a factor in predicting poorer health-promoting habits (Davidson & Prkachin, 1997). Moreover, people with defensive self-esteem are worse at exercising

self-control after an ego threat while those with secure self-esteem are not (Lambird & Mann, 2006). Lastly, research on children with defensive HSE indicates that those children are more aggressive towards their peers and are more likely to be bullies compared to children with genuine HSE (Sandstrom & Jordan, 2008).

Defensiveness

The previously mentioned studies converge on the idea that defensive HSEs are overly reliant on self-enhancement for boosting feelings of self-worth. This suggests greater use of their ego-defensive processes. The origin of the concept of defensiveness is traditionally credited to Sigmund Freud (e.g., S. Freud, 1923, 1962), who posited that the ego guards itself from threats against threatening internal events, notably sexual or aggressive urges that one must subdue for optimal functioning in society. According to Freud, such urges conflict with a person's internalized standards for appropriate behavior. Therefore, he suggested that the ego employs an array of defense mechanisms to regulate these impulses. Individual personality was presumed to derive from how the ego attempts to subdue sexual and aggressive urges.

Though contemporary social and personality psychologists have not adopted this view on personality development, they have found considerable evidence for the need to defend the ego, or the self, against threat. Building upon the concept of defense mechanisms, Fenichel (1945) argued that rather than used to suppress unacceptable impulses, defense mechanisms work to support self-esteem. In his view, people engage in defensive thought processes in order to promote positive feelings of self-worth.

Until recently, contemporary social and personality psychologists have spent little effort on explaining defensive processes in terms of Freudian mechanisms. Baumeister,

Dale and Sommer (1998), however, found evidence for several mechanisms in their meta-analysis on defensive processes documented in experimental psychological findings. Among those supported was denial, which is a refusal to acknowledge the existence of threatening events. According to Cramer (1991), denial can occur at a perceptual level, such as inattention to or misperception of stimuli that could dampen one's self-view. It can also occur at a cognitive level, wherein a person actively constructs a preferred view of the world that prevents them from focusing on the world as it truly is.

Denial can be further broken down into several processes by which this defense is carried out. In *The Development of Defense Mechanisms: Theory, Research, and Assessment* (Cramer, 1991), Cramer lists "overly maximizing the positive and minimizing the negative" as one of these processes. Denial, like all other defensive processes, is seen by clinicians as part of typical psychological functioning, though it can become maladaptive and lead to potential psychopathology. Minimization is particularly relevant for the purpose of the proposed study. Among those with defensive self-esteem, the tendency to minimize the importance of social approval to one's self-worth should be especially strong after those participants are faced with a social threat.

Measuring Defense Mechanisms

Researchers have designed numerous self-report measures to observe the use of defense mechanisms, as well as to capture individual levels of global defensiveness as a variable trait. Some of the more widely used measures of defense mechanisms include Coping and Defending Scales (Joffe & Naditch, 1977); the Defense Mechanisms Inventory (Gleser & Ihlevich, 1969); the Life-Style Index (Plutchik, Kellerman, &

Conte, 1979); and the Defense Style Questionnaire (Bond, Gardner, Christian, & Sigal, 1983). Davidson & MacGregor (1998) reviewed these measures to determine how well each detected defense mechanism use. They used Cramer's (1998) criteria for defense mechanism questionnaires as the basis for their investigation. Cramer suggested that defense mechanism measures capture behavior that is unconsciously motivated; that is the result of a perceived threat; that buffers anxiety; that is stable over time within the individual; that can vary along a continuum between adaptive and maladaptive; and that detects a particular defense mechanism. The researchers concluded that each measure was deficient in at least one of these criteria, suggesting that future studies on mechanism use should involve assessments from multiple scales for a more comprehensive view.

In contrast, projective measurements of defense mechanism use have also been developed. Rather than requiring patients to report on their use of defense mechanisms, patients instead provide their thoughts on presented stimuli, and these thoughts are interpreted by clinicians to determine the presence of defense mechanisms. One prominent example is the Thematic Apperception Test (TAT; Hibbard, Porcerelli, Kamoo, et al., 2010), which has been used in recent years to observe defensive strategies used in a narrative context. Participants are presented ambiguous illustrations and are asked to create a story about each illustration. Raters then code each story for themes of denial, projection and identification. This has shown to be an effective measure of defensive strategies due to its "relatively free expression of thought processes" (Cramer, 1991) and sufficient interrater reliability (Cramer, Blatt & Ford, 1988; Hibbard, Farmer, Wells et. al, 1994; Hibbard & Porcerelli, 1998).

As mentioned previously, the Defensive Verbal Behavior Assessment (DVBA; Feldman-Barrett et al., 2000) was another measure designed by researchers. The DVBA is used to observe defensive verbal responses following self-threatening questions posed by an interviewer. The DVBA was designed to elicit mild discomfort among interviewees (e.g., “Tell me about a time when you felt that your parents were really disappointed in you”). Trained raters listened to the recorded interviews and score each of the 15 items from 0 (low defensiveness) to 3 (high defensiveness) based on the criteria set by Feldman-Barrett et al. (2000). Defensiveness is evaluated by the degree of awareness that a person has about threatening information, and the amount of distortion of the events recalled. Unlike the other measures mentioned, the DVBA captures global levels of defensiveness rather than use of specific mechanisms.

Similar to other measures of defensiveness, I suggest that asking participants to indicate responses on the Contingencies of Self-Worth approval subscale (CSW; Crocker et al., 2003), particularly after a social threat, will provide a glimpse into defensive processes at work. The CSW covers a range of common domains upon which people base their self-esteem. Though not a measure that was originally designed for observing defense mechanisms, it is possible that those who feel the greatest need to minimize the importance of approval in order to salvage feelings of self-worth would use this scale as a way to facilitate their defensive processes.

Minimizing the importance of approval after a social threat is an especially defensive process. A myriad of studies have shown how fundamental the need for belongingness is (Baumeister & Leary, 1995). Belongingness is characterized by the need for meaningful, long-term relationships with other human beings. Thus it is satiated

when emotional intimacy between social partners is achieved and when contact between social partners is continuous. Research suggests that it is a powerful motivator regarding behavior. Belongingness is so crucial to individual well-being that the lack of it is strongly linked to physical and psychological health problems, even when controlling for extraneous factors. It is possible that those with defensive HSE are prone to denying the importance of belongingness after feeling socially threatened because doing so prevents the painful realization that such a fundamental need is unmet.

Self-Affirmation Theory and Defensiveness

According to self-affirmation theory, people are motivated by the need to feel a sense of self-integrity, or the sense that they are good and worthy individuals (Sherman & Cohen, 2006; Steele, 1988). When faced with a real or perceived threat to this view of themselves, such as a professional or personal setback, people can use defensive processes to immediately subdue this threat. Alternatively, they can also restore their sense of self-integrity by calling to mind core aspects of their self-concept that provide them security in knowing that they are someone who is inherently decent. Self-affirmation is a relied upon strategy in daily functioning among young adults, and seems to occur automatically in the face of threats to integrity (Toma & Hancock, 2013).

In a typical laboratory procedure, self-affirmation is manipulated by asking participants to choose one of their most important values from a predetermined list (e.g. knowledge, relationships, creativity) and then write an essay about why the value is central to their life and/or describing a time in which they embodied what that value means (McQueen & Klein, 2006) . Buckingham, Emery and Montague (2013) introduced a similar self-affirmation manipulation before presenting a social self-threat to

participants. People with high self-esteem who self-affirmed before writing an essay on a time in which they felt ignored by others reported higher levels of approval CSW than did people with high self-esteem who did not self-affirm. As before, this provides evidence that among HSEs, downplaying social approval serves as a self-enhancement strategy following ostracism. HSEs who self-affirmed were relatively more accepting of the importance of others' approval on feeling good about themselves than were HSEs who did not self-affirm. Thus, their self-enhancement motive was satisfied by self-affirmation. For the latter group, the need to boost themselves after a social threat was still salient, leading them to downplay social approval in order to maintain their high self-esteem.

While laboratory manipulations have been consistently effective in affirming individuals, recent evidence suggests that people engage in self-affirmations voluntarily in the real world, and with considerable effects. Toma and Hancock (2013) found that perusing one's own Facebook profile serves as an equally effective affirming exercise as the standard experimental method does. More importantly, people are more likely to choose browsing their own Facebook after a threat than they are to choose other activities (Toma & Hancock, 2013).

Self-affirmation is crucial to the study of defensiveness because there is abundant evidence indicating that self-affirmation serves to reduce a number of defensive behaviors. Affirmed individuals were more likely to be less critical of attitudes that are inconsistent with their own (Cohen, Aronson, & Steele, 2000), were able to exercise greater self-control (Schmeichel & Vohs, 2009), were more accepting of threatening health information (Sherman, Nelson, & Steele, 2000), and showed less prejudiced towards out-

groups (Fein & Spencer, 1997) compared to non-affirmed individuals. Moreover, self-affirmation also seems to have an even greater impact on people with defensive self-esteem (Haddock & Gebauer, 2011). Among people with defensive self-esteem, those who engaged in a self-affirmation task subsequently showed smaller discrepancies between their actual and their ideal selves than those who did not affirm themselves (Haddock & Gebauer, 2011). Indeed, self-affirmation can provide adequate restoration of self-integrity to those most in need of it.

The Present Study

The study conducted by Haddock and Gebauer (2011) is the only research to date that focuses on the effects of self-affirmation on defensive SEs. Therefore, more research is needed to gain a clearer understanding of other ways in which defensive SEs may benefit from self-affirmations. The proposed study was a step in this direction. I sought to establish whether self-affirmation reduces defensiveness to the extent that its effect can be seen when defensive SEs are given an opportunity to defend themselves after a social threat. In doing so, my aim was to gain additional insight into what other benefits of self-affirmation there are for defensive SEs. As with Haddock and Gebauer's findings (2011), this study could also specify for whom self-affirmation is most helpful. It would be important for researchers to know whether self-affirmation has a greater observed effect among defensive SEs than it does for secure SEs.

Individuals with high explicit SE were the focus of the proposed study. All participants completed the SE-IAT (Greenwald & Farnham, 2000). Implicit SE was based upon a continuum of IAT scores, with defensive SEs scoring relatively lower on the IAT than secure SEs. Then, half of them recalled the details of an event during

which they felt ignored by others. Half of the participants also engaged in a self-affirmation task while the other half completed a neutral task. All participants then completed an abridged version of the CSW scale (Crocker et. al, 2003). I expected to replicate the findings of a previous study I conducted in which participants were involved in the same procedure. Those results indicated that defensive SEs downplayed the importance of social approval to their self-worth, but only after being faced with a social threat. Moreover, this pattern did not emerge among genuine SEs. Importantly, I hypothesized that this pattern would be significantly attenuated after self-affirmation. That is, defensive HSEs who self-affirm after a social threat would be more likely than those who do not self-affirm to admit that their self-worth rests on how others regard them.

Finally, self-control was assessed for exploratory purposes. Self-control refers to the ability to regulate one's actions. It requires resisting strong urges to overeat, to overspend, to procrastinate on a project – in short, it is the ability to maintain discipline over oneself for future well-being. Self-control, or willpower, has indeed been demonstrated as a quantifiable resource. Lab studies have revealed a drop in blood glucose levels after people engage in tasks that drain them of their self-control, resulting in what researchers refer to as ego-depletion (Baumeister, Vohs & Tice, 2007). Moreover, “exercising” self-control in one task leaves people with less of it to use during subsequent tasks (Baumeister et al, 2007). The question pertaining to this investigation is whether engaging in defensive processes also depletes an individual's self-control resources. One perspective would be that they do not require self-control if they are automatic (Cramer, 1998). Automatic, “on-line” processes operate outside of

consciousness, and so they do not require effortful control. Thus, levels of self-control should not be affected by activation of those processes.

Another possibility is that self-control resources are used when protecting oneself against an ego threat. That would leave less of the resource left for carrying out a subsequent self-control task. While there is no concrete evidence to suggest that defensiveness leads to ego-depletion, there is evidence that self-affirmation, the alternative route to self-integrity restoration, does the opposite. Self-affirmation has been shown to boost levels of self-control following an ego-depleting task (Schmeichel & Vohs, 2009). If self-affirmation has a positive effect on self-control levels, perhaps defensiveness has the negative effect of draining them. From this perspective, engaging in defensiveness might diminish one's supply of self-control, thereby making an individual less able to implement it in another task. If this is the case, then defensive SEs would show less self-control after facing (and defending themselves against) a threat to social approval than in the control (no threat) condition.

Method

Design

This was a quasi-experimental design, given that the predictor variables were two experimental manipulations and pre-existing individual differences among the participants. The predictor variables were implicit SE, social threat, self-affirmation, and the interactions among the three main variables. The outcome variable was contingent self-worth based on approval (approval CSW).

Participants

One-hundred twenty-nine students completed this study. Seven participants were excluded from the analysis. I excluded participants if at least one of the raters decided that a participant did not follow the instructions of the writing prompts. One was excluded because they left to use the restroom. Therefore, one-hundred twenty-two participants were used in the analysis (male = 19%, female = 81%). The mean age was 21.3 years old. Students signed up for a session on the Research Pool website in exchange for course credit. This study was only visible to students who scored at or above the median (3.3) on the self-liking subscale of the SLSC scale (Tafarodi & Swann, 2001), which is based on data from the previous semester.

Procedure

Participants were greeted by the experimenter and completed the study in separate rooms. The study was presented on individual computers through the Medialab and DirectRT software programs. After obtaining informed consent, the experimenter explained that the lab recently acquired a new program and that the first part of the session was meant to collect pilot data before it is used in subsequent experiments. They were then told that after participating in the first study, they would then move on to complete a second, separate study in which they would write about an important value. The purpose of this cover story was to minimize suspicion as to why the IAT test was administered before the manipulation.

Participants then completed the SE-IAT (Greenwald & Farnham, 2000). Participants viewed four types of stimuli: “Me” words (e.g. “I”, “Self”), “Not Me” words (e.g. “They”, “Them”), “Good” words (e.g. “Glory”, “Cuddle”), and “Bad” words (e.g.

“Vomit”, “Brutal”). Five words were presented in each target category (e.g., “me”, “not me”), and ten words were presented in each valence category (e.g., “good”, “bad”). The words within each category were presented in a randomized order. For the first step, participants made categorical judgments for the target words. Participants were instructed to hit one key whenever they saw a “Me” word and another key when they saw a “Not Me” word. For the second step, the same process was completed with the valence words. During the third step, the four categories were combined into two categories. Each of the two new categories contained one type of target word and one type of valence word (i.e. “Me” and “Good”). As before, participants hit the key that corresponded to the word presented on the screen.

For the fourth step, participants made more categorical judgments for the target words only; however in this phase the keys were switched from before (i.e. If “e” corresponded to “Me” in the first step, it then corresponded to “Not Me” in this step). In the final step, the four categories were again combined into two, with the switched target words now paired with new valence words. Thus, if “Me” words were paired with “Good” words earlier in the task, they were now paired with “Bad” words. Participants completed 20 practice trials and 40 test trials during both steps in which their task was to sort the four stimuli into one of two categories. The order of this categorization was counterbalanced, with one-half of the participants pairing “me” words with “good” words and “not me” words with “bad” words first, and the other half completing the same pairings in the latter part of the test.

Next, participants engaged in a self-affirmation task or a control task. In the self-affirmation task, participants viewed a list of values (e.g. compassion, hedonism,

creativity) and were asked to write which value is most important to them. Then they wrote a paragraph about a time they exhibited their most important value. For the self-affirmation manipulation, a research assistant and I independently assessed whether the participants followed the instructions. We both read all of the self-affirmation essays. Then in separate Microsoft Word documents, we typed “yes” or “no” next to each participant number to indicate whether or not the directions were followed. Afterwards I compared my research assistant's assessments with mine, and calculated the percentage of essays we agreed upon. Our interrater reliability was 95%. Participants in the control condition wrote about their daily routine. The instructions for the daily routine condition were, “Write a short essay (a few paragraphs) about your daily routine as a college student. If your routine varies from day to day, it is fine to explain that in your essay, too.” The prompt for the self-affirmation task was as follows:

In the space below, please write a short essay (a few paragraphs) about why this principle or standard is important to you. Take a few minutes to think about this value and how this value has influenced your past behaviors or attitudes. Please write about how you use this value in your everyday life – at college, at home, with friends, or in dealing with strangers. If you can, try to recall and write about specific occasions on which this value determined what you did.

It was crucial that the self-affirmation task precede the social threat. Past research indicates that self-affirmations are more effective when they occur prior to rather than after a threat to the self (Critcher, Dunning, & Armor, 2010). The ignored condition was a writing task that has induced threats to belongingness in previous studies (Molden, Lucas, Gardner, Dean & Knowles, 2009; Buckingham, Weber & Sypher, 2011;

Buckingham, Emery & Montague, 2012). Again, the experimenter introduced this part of the study as a separate study that was included during the session “in order to make efficient use of the time that participants are signed up for.” Participants were randomly assigned to either the ignored condition or the control condition. A research assistant and I independently evaluated each ignored essay to determine whether participants followed the instructions. Interrater reliability was determined in the same manner as was for the self-affirmation essays. We agreed upon 85% of the ignored essays. In the ignored condition, participants received the following instructions:

Think about a time when you felt intensely ignored in some way...it must be a time when you were clearly ignored, but no one actually said they did not want or like you. Please describe the situation that led you to feel ignored in the space below (e.g., where were you, what made you feel ignored, etc.).

Participants who did not write the ignored essay wrote a neutral essay for the same duration of time. The instructions for that essay were, “In as much detail as you can, please write down everything you have eaten or drank in the past 48 hours. Do not worry about the things you find yourself unable to remember,” (Harvey & Oswald, 2000).

Participants were given 5 min. to type each essay. Afterwards, all participants completed a series of questionnaires. First they completed an abridged version of the Contingencies of Self-Worth Questionnaire (CSW; Crocker et al., 2003). This scale measures the importance of several areas to one’s self-esteem, including social approval, academic success, physical appearance, and family support. Although approval CSW was the variable of interest, the rest of the subscales were included a) to see if other CSWs are affected when defensive HSEs reflect on past social exclusion and b) to

maintain ambiguity regarding which variable is being observed. Examples of the social approval subscale include, “I don’t care if others have a negative opinion about me,” and “I can’t respect myself if others don’t respect me”. Participants indicated their responses to each item on a scale from 1 (*strongly disagree*) to 7 (*strongly agree*), Cronbach’s alpha = .751.

For the exploratory portion of the study, participants’ levels of self-control following a social threat were measured. After completing the CSW scale, participants were then asked to complete the Anagram Persistence Task (APT; Quinn, Brandon & Copeland, 1996). This method has been used in previous research to observe participants’ average persistence during the anagram problems. Participants completed a series of eleven anagrams by unscrambling them to form words. They had the options to skip over anagrams, and to decide to stop working altogether. After three minutes, the computer was programmed to move on to the next anagram.

Anagrams 1, 2, 3, 5, and 7 were relatively easy to solve (Audit, Beach, Cable, Match, and Short). The remaining anagrams 4, 6, 8, 9, 10, and 11 were more difficult to solve (Kylix, Ohgam, Thuja, Umiac, Vrouw, and Zoeae). Self-control was operationally defined as the mean time (seconds) spent solving the difficult anagrams. Participants had to motivate themselves to keep trying despite the challenge, which necessitates regulation over their attention and their actions. The MediaLab software program tracked the duration of time for each problem. After the self-control task, they then completed demographic measures (e.g. gender, age). Lastly, they were thanked, probed for suspicion, and fully debriefed.

Results

Prior to the main analyses I screened the data for any significant skewness among the continuous measures. Among the IAT scores I considered any score that was 3 standard deviations away from the mean as an outlier. Two outliers were found; however the results remained consistent regardless of whether or not they were included. Overall the distribution of IAT scores was fairly symmetrical. I also plotted the distribution for the approval CSWs and observed a symmetrical distributions of scores. Next I coded each categorical variable in order to conduct group comparisons. For the social threat conditions, I coded the ignored condition as -1 and the control condition as 1. For self-affirmation, I coded the experimental condition as 1 and the daily routine condition as -1.

I examined the bivariate correlations between the predictor variables and outcome variables (see Table 1 below). The data were also analyzed using hierarchical regression analysis with implicit SE, social threat (ignored vs. control), and self-affirmation (self-affirmation vs. daily routine) as the main predictors; approval CSW was the main outcome variable. Two-way and three-way interactions between the predictor variables were also added. For exploratory purposes the same analyses were conducted with additional CSWs (e.g. appearance, performance) and with average persistence during the difficult word scrambles in the APT (Quinn et al., 1996) as outcome variables.

Table 1.

Pearson Correlations Among Study Variables

	IAT	Affirmation	Ignore	Approval	Appear	Perform	Persistence
IAT		.039	.019	.105	.054	.089	.052
Affirmation	.039	1	.033	.038	.013	-.156	.011
Ignore	.019	.033	1	.122	.003	.042	.044
Approval	.105	.038	.122	1	.340**	.298**	-.069
Appear	.054	.013	.003	.340**	1	.392**	.081
Performance	.089	-.156	.042	.298**	.392**	1	-.037
Persistence	.052	.011	.044	-.069	.081	-.037	1

**, Correlation is significant at the 0.01 level (2-tailed).

To conduct the regressions, first I multiplied implicit self-esteem by threat, implicit self-esteem by self-affirmation and self-affirmation by threat to create two-way interaction terms for each outcome variable. Then I multiplied implicit self-esteem by self-affirmation by threat to create the three-way interaction term. In Step 1 of each regression, I entered the main effects as predictors of contingencies of self-worth and APT performance. In Step 2, I included the two-way interaction terms. In Step 3, I added the three-way interaction term. I also conducted a bootstrapping procedure to determine whether the results would replicate across 10,000 samples. Finally, I compared the results of the no-self affirmation group to the results from my previous study in which participants were threatened or not. It was expected that the same pattern would emerge given that all the participants in my previous study did not engage in self-affirmation.

I hypothesized that a three-way interaction between IAT scores, the self-affirmation condition and the ignored condition would affect participants' approval CSW scores. For the CSW measures, none of the main effects or interactions reached significance, $ps > .05$ (Tables 2, 3, 4 & 5). It is interesting to note that although the effect of social threat on approval CSW was not significant, the beta weight was trending in the predicted direction ($\beta = .114$). As shown in Table 3, I also conducted a regression using only the no self-affirmation group and obtained similar results ($\beta = .141$). Unlike my previous study, there was no significant difference between participants in the ignored condition and participants in the control condition, $p > .05$. Moreover, there was a marginal effect of affirmation on performance CSW ($\beta = -.177, p = .057$) As for the task persistence measure, all of the main effects and interactions were also nonsignificant, $ps > .05$ (Table 6).

Table 2.

Linear Regression on Approval CSW

Model	B	SE B	β	Sig.
IAT	.100	.111	.089	.368
Affirmation	.046	.107	.041	.665
Ignore	.130	.107	.114	.226
IATxAffirm	.053	.111	.047	.631
IATxIgnore	-.062	.111	-.055	.578
AffirmxIgnore	-.021	.107	-.018	.843
IATxAffirmxIgnore	-.064	.111	-.056	.563

Table 3.

Linear Regression on Approval CSW (No Self-Affirmation)

Model	B	SE B	β	Sig.
IAT	.047	.146	.044	.750
Ignored	.151	.140	.141	.283
IATxIgnored	.002	.146	.002	.987

Table 4.

Linear Regression on Appearance CSW

Model	B	SE B	β	Sig.
IAT	.037	.112	.032	.746
Affirmation	.026	.108	.023	.811
Ignore	-.001	.108	-.001	.991
IATxAffirm	.047	.112	.042	.675
IATxIgnore	-.075	.112	-.066	.506
AffirmxIgnore	-.036	.108	.031	.742
IATxAffirmxIgnore	-.069	.112	-.060	.540

Table 5.

Linear Regression on Performance CSW

Model	B	SE B	β	Sig.
IAT	.067	.104	.063	.519
Affirmation	-.192	.100	-.177	.057
Ignore	.034	.100	.032	.732
IATxAffirm	.134	.104	.125	.201
IATxIgnore	.117	.104	.109	.263
AffirmxIgnore	.062	.100	.057	.535
IATxAffirmxIgnore	-.083	.104	-.076	.429

Table 6.

Linear Regression on Task Persistence

Model	B	SE B	<i>B</i>	Sig.
IAT	2138.462	2152.542	.102	.323
Affirmation	319.659	1881.507	.016	.865
Ignore	651.749	1881.507	.034	.730
IATxAffirm	1147.236	2152.542	.055	.595
IATxIgnore	-952.464	2152.542	-.046	.659
AffirmxIgnore	-2048.366	1881.507	-.106	.279
IATxAffirmxIgnore	1235.497	2152.542	.058	.567

Discussion

The main hypothesis was not supported by this study. One problem that arose during this study was that group randomization failed to produce comparable IAT scores across the four groups. . In the self-affirmation condition, the average standardized IAT score was higher in the control group than in the ignored group ($M = .218$, $SD = .823$ vs. $M = -.138$, $SD = 1.999$). In the daily routine condition, the average IAT score was higher in the ignored group than in the not ignored group ($M = .099$, $SD = .828$ vs. $M = -.165$, $SD = 1.180$). Thus, defensive SEs were underrepresented among participants who wrote the daily routine and were then threatened. This runs counter to the hypothesis. Having an overrepresentation of secure SEs in this condition makes it harder to see the hypothesized effect on approval CSWs. Given that administration of the IAT was the first phase of the experiment, there was nothing during the procedure that could have influenced the scores other than randomization.

This study may have also failed to support the hypothesis due to the alterations made in the methodology, specifically the number of writing prompts given to participants. In the study I conducted prior to this one, participants who wrote about being ignored were compared to control participants who received no writing prompts (Buckingham & Lam, 2014). In that study I did find a significant difference in approval CSWs between the experimental and control conditions. For this current study, however, I added a control essay to compare to the ignored essay. I also included a control essay to compare to the self-affirmation condition. Furthermore, the essays were written without any break in between, thus not giving participants time to rest between tasks. It is

possible then that these changes, however slight, could have offset the main effects of the ignored condition and of the self-affirmation condition.

Moreover, the self-affirmation condition I used has been a reliable manipulation in numerous studies (McQueen & Klein, 2006). There is certainly a wealth of evidence to support its potential to reduce defensiveness. For example, affirmations can lead to reduced prejudice towards outgroups (Jordan et al., 2003), can make people more accepting of threatening health information (Sherman et al., 2000), and can increase the amount of personal responsibility people take for failure (Sherman, Kinias, Major, Kim & Prenovost, 2007). However, these studies have not included contingent self-worth as an outcome measure. Perhaps self-affirmations are effective enough to reduce some defensive thoughts and behaviors but not others.

As mentioned before, the amount of writing that participants were expected to do might have impacted the strength of its effect. Participants simply might have been too cognitively taxed or too bored to focus on every task. Toma and Hancock (2013) were able to demonstrate the self-affirmational processes that occur when people browse their Facebook accounts. Given the relatively more immersive and engaging nature of using social media, perhaps this study could be improved by using the same method.

Another potential issue could have been the content of the control essay that was used as a comparison for the ignored condition. As described in the method section, participants who did not write about being ignored instead wrote an essay about what they ate and drank during the past 48 hours. It is possible that thinking about their eating and drinking habits was a self-threat for those participants. This is important to consider given that roughly 80% of the sample was female, and that perceptions of how healthy or

unhealthy a consumed food item is has been shown to influence college women's state body esteem (Hayes, D'Anci & Karanek, 2011).

To address this issue, perhaps this study could be improved by using a standardized method to induce ostracism. One method is to present participants with a vignette describing an instance of ostracism, and instructing them to imagine being in the situation described (Uskul & Over, 2014). Uskul and Over (2014) used this method to elicit feelings of exclusion among a sample of farmers and herders. The researchers presented two vignettes in counterbalanced order to each participant: one in which they had to visualize being ostracized by close others (i.e. friends from their village) and another in which they were ostracized by strangers (e.g. people from another village). There were no conditions in which participants read nothing or in which they read vignettes without imagining themselves as the person in them. They found that ostracism from close others prompted a higher need for belongingness and higher negative affect (e.g. anger, sadness) compared to ostracism from strangers (Uskul & Over, 2014).

Using this method might be beneficial for improving the design of this study, particularly if the close-other scenario poses a sufficient threat to the self. The control condition could include the same vignette, however participants would only be instructed to read the story without imagining that the events were happening to them. Because the essay content would be held constant for each participant, any difference observed between the ignored and control groups could be due to the difference in how the event was perceived.

Despite findings from previous research that defensive SEs are particularly sensitive to self-affirmation processes (Haddock & Gibbard, 2011), I did not find

evidence of this in the current study. However, this does not mean that this effect cannot be observed in the future. I did obtain a significant effect of social threat on those with defensive SEs in past research (Buckingham & Lam, 2014). Therefore, it is still possible that a significant interaction could emerge with sufficient modification to the procedure. Future research could be used to implement the changes mentioned previously in order to fully determine whether self-affirmation is particularly beneficial for defensive SEs.

Appendix A



September 17, 2014

To: Tiffany Lam
Dept. of Psychology
Modifications to TU IRB project 14-A044

Office of Sponsored Programs
& Research

Towson University
8000 York Road
Towson, MD 21252-0001

t. 410 704-2236
f. 410 704-4494
www.towson.edu/ospr

Dear Ms. Lam,

Thank you for informing the Towson IRB of your modifications to project 14-A044 "Self-Esteem and Social Experiences".

The Towson University Institutional Review Board for the Protection of Human Participants has reviewed and approved your modification for this project. However, this modification approval does not change the expiration date of the original approval, which will need to be renewed one year from the date of approval if the research is ongoing.

If any other modifications are made to this project, or if any new risks are discovered, please inform the Board immediately.

Should you have any questions, please do not hesitate to contact me at 410-704-2236.

Sincerely,

A handwritten signature in blue ink, appearing to read "V. Spears", written over a horizontal line.

V. Denise Spears, MPA
Compliance Administrator, On Behalf of Towson University Institutional Review
Board for the Protection of Human Participants

CC:
File

*Appendix B***Informed Consent**

Principal Investigator: Tiffany Lam, Department of Psychology, Towson University

This is a study in which we are examining the relationship between social experiences and personality. You will first be asked to provide pilot data on a new computerized task in our lab. During this task, participants separate words that appear on the screen into categories. Afterwards, you will be asked to describe a social experience from your past. You will then fill out a personality scale. Lastly, you will be asked to complete the pilot task again.

There are no known risks associated with participating in the study. Should you become distressed or uncomfortable, we will terminate the session immediately. Although there are no direct benefits to you, we hope that the results of the study will reveal something about human behavior. The study should take no longer than 30 minutes to complete.

Participants must be at least 18 years old.

Your participation is entirely voluntary. You do not have to participate in the study. If you choose to participate, you may discontinue your participation at any time. Your decision to participate or not to participate will not influence your grade or class standing.

All information about your responses will remain confidential. We will not show your information to anyone outside of our research team unless you give us written permission. Your responses will never be linked to your name. If you have any questions, you may ask them now or at any time during the study. If you should have questions after today, you can call (410) 5473 and ask for Tiffany Lam (410) 704-3214 or call (410) 704-2236 and ask for Dr. Pat Alt, Chairperson of the Institutional Review Board for the Protection of Human Participants at Towson University.

I, _____ affirm that I have read and understand the above statements and have had all of my questions answered.

Date: _____

Signature: _____

THIS PROJECT HAS BEEN REVIEWED BY THE INSTITUTIONAL REVIEW BOARD
FOR THE PROTECTION OF HUMAN PARTICIPANTS AT TOWSON UNIVERSITY.

Appendix C

CURRICULUM VITAE

Name: Tiffany Lam

[REDACTED]

Program of Study: Psychology

Degree and Date to be Conferred: Master of Arts, 2015

Secondary Education: North Babylon High School, North Babylon, NY, 2006

<u>Collegiate institutions attended</u>	<u>Dates</u>	<u>Degree</u>	<u>Date of Degree</u>
Towson University	08/13-05/15	Master of Arts	05/15
University of North Carolina - Greensboro	08/09-05/13	Bachelor of Arts	05/13

Major: Psychology

Presentations:

Lam, T., Yajcaji, A. & Buckingham, J. (2015, March). *Downplaying social approval: The role of defensive self-esteem*. Poster presented at the annual meeting of the Eastern Psychological Association, Philadelphia, PA.

Lam, T., Haj, P. & Zell, E. (2014, February). *Do other groups like us more than we think?* Poster presented at the annual meeting of the Society for Personality and Social Psychology, Austin, TX. Lam, T. & Delaney, P. F. (2013, April). *Is a second message necessary to produce the fast sleeper effect?* Talk given at the UNCG Undergraduate Research Expo, Greensboro, NC.

Lam, T. & Zell, E. (2013, March). *Young adults are more liberal than they realize*. Poster presented at the annual meeting of the Southeastern Psychological Association, Atlanta, GA.

Lam, T. & Zell, E. (2012, April). *Is what I think you think about me true? Meta-stereotyping between atheists and Catholics*. Poster presented at the annual UNCG Undergraduate Research Expo, Greensboro, NC.

Professional positions:

Graduate assistant

Towson University

8000 York Road, LA 2210

Towson, MD 21252

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