

The Effect of the Social Evaluation of Low Self-Esteem on Personal and Relational Well-Being

by

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## Abstract

There is a pervasive view within North American culture whereby high self-esteem is praised and low self-esteem is devalued (Cameron, MacGregor, & Kwang, 2013). I suggest that these social beliefs undermine the personal and relational well-being of individuals possessing lower self-esteem (LSEs). Such consequences might be a result of LSEs' being aware of this negative social stereotype, which in turn may engender feelings of shame and anticipated rejection (Cameron et al, 2013). Poor well-being may also be the result of LSEs tendency to conceal this devalued trait (Cameron, Hogarth, & Magid, 2016). The purpose of the present study was therefore to test whether altering the social evaluation of low self-esteem would positively influence the personal and relational well-being of LSEs. One-hundred and fifty-nine undergraduate introductory psychology students and 128 TurkPrime participants were randomly assigned to a social rejection of low self-esteem (SRLSE) condition, a disclosure only condition, or a social acceptance of low self-esteem (SALSE) condition. Contrary to predictions, participants in the SALSE condition did not report higher levels of well-being compared to those in the SRLSE and disclosure only condition. However, results indicated that lower self-esteem was associated decreased personal and relational well-being, replicating previous research. By examining the relationship between self-esteem and well-being, researchers may be better positioned to predict and intervene to improve well-being for LSEs. Further research investigating the relationship between self-esteem, the social acceptability of self-esteem, and subsequent effects on well-being is suggested.

*Keywords:* self-esteem, social acceptance, romantic relationships, well-being, lay theory of self-esteem

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## The Effect of the Social Evaluation of Low Self-Esteem on Personal and Relational Well-Being

North American culture holds an implicit theory of self-esteem that idealizes individuals with high self-esteem and disparages those who possess low self-esteem (Cameron, MacGregor, & Kwang, 2013; Zeigler-Hill & Myers, 2011). As such, individuals with low self-esteem are assumed to possess a host of negative traits (e.g., being less attractive) simply because of their low self-esteem status (e.g., Cameron, Stinson, Hoplock, Hole, & Schellenberg, 2016; Zeigler-Hill & Myers, 2011). This widespread belief can elicit feelings of devaluation and anticipated rejection among individuals possessing lower self-esteem (LSEs; see Cameron et al, 2013) and subsequently lead to diminished well-being. To avoid this anticipated rejection, LSEs' may attempt to hide their devalued trait (Cameron, Hogarth, & Magid, 2016), creating further detriments to their personal and relational well-being.

Feeling devalued based on one's stigmatized or devalued trait is associated with poor psychological well-being (Quinn & Chaudoir, 2013). Such devaluation may also prompt LSEs' to try to conceal aspects of the self. Concealment, both generally and pertaining to a devalued or stigmatized identity is associated with cognitive and emotional costs to personal and relational well-being (e.g., Smart & Wegner, 2000; Uysal, Lin, & Bush, 2012). In the present research, I propose that by making the social evaluation of low self-esteem more positive, this link between lower self-esteem and poor well-being can be broken, or at least attenuated. Using a manipulation created in my previous research (Magid, 2017), I tested whether changing the perception of the social acceptability of lower self-esteem can reduce the negative consequences associated with social beliefs about lower self-esteem. In the remainder of this introduction, I will broadly define self-esteem, discuss its capacity to serve as both a cause and a consequence of social evaluation through its status-tracking and status-signaling properties, as well as

examine the negative implications this has on those labeled as LSEs. I will then provide evidence of self-esteem's impact on personal and relational well-being and discuss two potential pathways linking social perceptions of self-esteem to well-being. Finally, I will describe the process through which changing the social evaluation of self-esteem may lead to increases in personal and relational well-being for LSEs.

### **Self-Esteem**

Self-esteem is defined as an individual's subjective evaluation of his or her self-worth (Baumeister, 1993) and plays a fundamental role in the transfer of information concerning social status between an individual and their social environment (e.g., Zeigler-Hill & Myers, 2011). From the perspective of the sociometer theory, self-esteem has a *status-tracking property* which measures an individual's relational value in their social environment and allows them to monitor the degree to which they believe they are valued by others (Leary, Tambor, Terdal, & Downs, 1995; Zeigler-Hill & Myers, 2011). Complementing this theory, the *status-signaling model of self-esteem* suggests that self-esteem is not only responsive to how an individual is evaluated by others, but also influences how that individual is perceived by others (Zeigler-Hill et al. 2013). I will now provide a more nuanced discussion of both the status-tracking and status-signaling properties of self-esteem and how they are theorized to operate.

**The status-tracking property of self-esteem.** According to the sociometer model developed by Leary and colleagues, self-esteem is a regulatory system that evolved to help humans integrate with groups, sustain meaningful relationships, and avoid social exclusion by monitoring perceived inclusionary status (e.g., Leary et al., 1995). As such, the sociometer argues that self-esteem has a status-tracking property whereby an individual's current level of self-esteem depends on the degree to which that individual views the self as having relational

value. Relational value is the extent to which one feels “relational appreciation and social belongingness” (Leary & Baumeister, 2000, p.12) and can vary along a continuum (Leary & Guadagno, 2004). Through repeated social interactions, individuals form and calibrate stable self-views about whether they have high or low relational value (Leary & Baumeister, 2000). Accordingly, individuals will experience an increase in self-esteem following feelings of acceptance or inclusion because these events signal heightened relational value. In contrast, individuals will experience a decrease in self-esteem following experiences of rejection or social exclusion because these events signal a threat to inclusionary status. This threat to inclusionary status should subsequently motivate individuals to engage in compensatory behaviors in order to increase their relational value and self-esteem (e.g., Leary & Baumeister, 2000; Leary et al., 1995). From this viewpoint, self-esteem has no inherent value, but rather, is important because it indicates the degree to which an individual is valued and accepted by others in their social environment (Leary et al. 1995; Leary, 2005). In support of the sociometer model, numerous studies have demonstrated that self-esteem is responsive to social acceptance and rejection (e.g., Leary, Kowalski, Smith, & Phillips, 2003; Murray, Griffin, Rose, and Bellavia, 2003).

Because self-esteem is highly responsive to social feedback, research has suggested that whether an individual believes they are valued and accepted by others is largely dependent on the degree to which they believe the traits they possess are socially acceptable and valued by society (Anthony, Holmes, & Wood, 2007). Anthony and colleagues refer to this association between self-esteem and specific traits as the *attunement of self-esteem*. As such, believing that one possesses valued positive traits is more strongly associated with higher self-esteem than believing one does not possess positive traits (MacDonald, Saltzman, & Leary, 2003). In Western culture, observable traits such as physical attractiveness, sociability, popularity, and

internal traits such as loyalty and truthfulness are socially valued (Anthony et al., 2007). For this reason, people who believe they possess these valued traits also report higher self-esteem (Anthony et al., 2007). Put simply, because Western society emphasizes the importance of the aforementioned traits for social acceptance, people's feelings of self-worth and self-esteem are highly attuned to their beliefs about the possession of such traits (Anthony et al., 2007). While self-esteem is dependent on one's perceived relational value, an individual's level of self-esteem may also affect how that individual is perceived by others in their social environment.

**The status-signaling model of self-esteem.** Self-esteem is not only the consequence of social acceptance but can be a contributing factor to the experience of social acceptance (e.g., Cameron et al., 2013; Zeigler-Hill et al., 2013). In other words, impressions of another person's self-esteem, whether they are accurate or not, may impact how that individual is perceived by another person. The status-signaling model of self-esteem extends the sociometer theory, specifying that self-esteem also has *status-signaling properties* that affect how an individual is viewed by others on various dimensions (Zeigler-Hill et al., 2013). These status-signaling properties of self-esteem signal important status-related information to others in one's social world.

As evidence of the status signaling-nature of self-esteem, there are pervasive lay theories of self-esteem in Western societies, which suggest that an individual's level of self-esteem may influence how that individual is viewed on a variety of other dimensions (Cameron et al., 2013; Zeigler-Hill et al., 2013; Zeigler-Hill & Myers, 2011). Specifically, because self-esteem is a socially desirable trait in Western society, people assume that those who possess high self-esteem also possess other desirable qualities such as emotional stability, extraversion, and conscientiousness, whereas people with low self-esteem are regarded as less attractive,

romantically desirable, intelligent, and competent (Cameron et al., 2016; Zeigler-Hill & Myers, 2011). Using self-esteem as a proxy trait can lead to exaggerated and sometimes inaccurate assumptions about other's characteristics (Cameron et al., 2016).

While people use lay theories of self-esteem to judge others based on labels of low or high self-esteem, they may also readily use a variety of social cues to infer individuals' self-esteem. For example, people assume the self-esteem of others based on physical appearance (Naumann, Vazire, Rentfrow, & Gosling, 2009), t-shirt slogans, e-mail addresses (Zeigler-Hill & Myers, 2011), brief written descriptions (Cameron, Stinson, et al., 2016; Zeigler-Hill et al., 2013), and by observable cues noticed during video self-presentations (Hirschmüller, Schmukle, Krause, Back, & Egloff, 2017). Thus, people seem apt to detect self-esteem in others and in doing so, appear to make other social judgements about an individuals' overall worth.

Attaching social value to another's perceived self-esteem may also influence how that individual is treated. Past research has shown that LSEs are less likely to be hired for certain jobs (MacGregor, Cameron, & Holmes, 2010), and in some cases, are even viewed as negatively as welfare recipients and those who are mentally ill (Cameron et al., 2013). In essence, the status-signaling properties of self-esteem and implicit theory of self-esteem underscore the crucial importance of being perceived in a certain way by others. However, this importance may very well contribute to LSEs feelings of low self-worth, and constant hypervigilance for signs of rejection, creating a perpetuating cycle of perceived devaluation for LSEs. Consequently, this can have detrimental effects on both personal and relational well-being for LSEs.

### **Self-Esteem and Personal Well-being**

Much of the research to date has supported the notion that self-esteem influences whether individuals lead a satisfying life — a central component of personal well-being. In fact, ample

evidence suggests that global self-esteem, defined as one's overall feelings of self-worth, is a reliable predictor of global outcomes, and that people with negative self-views tend to think and act in ways that diminish their quality of life (Swann, Chang-Schneider, & McClarty, 2007). Thus, people with low self-esteem, relative to high self-esteem, are more likely to dampen their feelings when they feel good (Wood, Heimpel, & Michela, 2003), and are less likely to try and "raise their spirits" when they feel bad (Heimpel, Wood, Marshall, & Brown, 2002). Moreover, while higher self-esteem is associated with higher occupational status and salaries (Kammeyer-Mueller, Judge, & Piccolo, 2008; Kuster, Orth, & Meier, 2013; Orth, Robins, & Widaman, 2012), lower self-esteem tends to be associated with lower career success (Kuster et al., 2013) and a higher likelihood of becoming unemployed (Huysse-Gaytandjieva, Groot, Pavlova, & Joling, 2015). Consistent with these findings, a longitudinal study by Orth and colleagues (2012) indicated that individuals with high self-esteem reported higher levels of relationship satisfaction, job satisfaction, positive affect, and health, and lower levels of negative affect and depression compared to their low self-esteem counterparts. Other studies have also found that LSEs tend to suffer more than HSEs from numerous forms of psychopathology, such as generalized anxiety disorder (Henning, Turk, Mennin, Fresco, & Heimberg, 2007), social phobia (Izgiç, Akyüz, Dogan, & Kugu, 2004), and social avoidance (e.g., Abramson, Seligman, & Teasdale, 1978; Ottenbreit & Dobson, 2004). This may be at least partly attributable to the fact that LSEs tend to dampen positive affect and feel undeserving of positive outcomes, which may elicit negative self-views and reductions in personal well-being (Wood, Heimpel, Manwell, & Whittington, 2009; Wood et al., 2003). In short, there is compelling evidence that self-esteem is prospectively linked with important life outcomes that may affect an individual's personal well-being.

In line with this perspective, recent work suggests a link between lower self-esteem and maladaptive emotion regulation following rejection. This may, in turn, make LSEs more vulnerable to both decrements in personal well-being and health (Ford & Collins, 2010, 2013; Velotti, Garofalo, Bottazzi, & Caretti, 2017). Specifically, LSEs, who process rejecting information in a more threatening way, may need to utilize more mental resources to cope with rejection, leaving them with fewer resources to self-regulate their behavior, which may subsequently reduce personal well-being (Ford & Collins, 2013). Over time, these depleted self-regulatory resources following rejection may lead LSEs to respond by mis-regulating their health-related behaviors (Ford & Collins, 2013). For example, to cope with rejection, LSEs may be more likely than HSEs to engage in risky health behaviors such as alcohol and drug use in order to avoid the salience of rejection and escape from negative feelings about the self. While this may serve as a buffer against the impact of rejection on well-being, the benefits are temporary, and LSEs will ultimately experience greater decreases in both personal well-being and poor health compared to HSEs (Ford & Collins, 2013). However, the influence of lower self-esteem may not be limited to one's own personal well-being but may also influence individuals' experience in romantic relationships and the overall well-being of a close relationship.

### **Self-Esteem and Relational Well-Being**

Higher self-esteem is associated with greater relationship satisfaction (e.g., Erol & Orth, 2013; Mund, Finn, Hagemeyer, Zimmermann, & Neyer, 2015; Sciangula & Morry, 2009; Shackelford, 2001) and predicts increases in relationship satisfaction over time (Orth et al., 2012). Not only is self-esteem positively associated with an individual's own experience of relationship quality, but also the experience of that individual's partner (Erol & Orth, 2013; Robinson & Cameron, 2012). In fact, couples report greater relationship satisfaction and

commitment the greater their pooled self-esteem (Robinson & Cameron, 2012). Thus, it appears that the combined effect of both partners' self-esteem can significantly impact the quality of one's relationship. However, LSEs may not always have a partner that can contribute enough high self-esteem to this pooled level of self-esteem in order to "level the playing field" and reap the benefits of greater relational well-being. If LSEs and their partners have lower pooled self-esteem, they may be more likely to engage in relationship-destructive behaviors that negatively affect their relationship satisfaction and subsequently, their relational well-being.

LSEs' signature motivation to prioritize feeling safe from rejection over the vulnerability associated with seeking and maintaining interpersonal connections (Murray, Rose, Bellavia, Holmes, & Kusche, 2002) likely contributes to LSEs' underestimation of how positively their partners view them. This underestimation is derived from LSEs' assumption that their partners perceive them just as negatively as they perceive themselves, and therefore, underestimate the strength of a partners' love without justification (e.g., Cameron, Holmes, & Vorauer, 2009; Murray, Holmes, & Griffin, 2000) referred to as *unwarranted insecurities*. Such unwarranted insecurities can have many consequences for LSEs' relational well-being. When acceptance is not guaranteed, LSEs distance themselves in various ways to avoid rejection. In fact, considerable research finds that when the risk of rejection is evident in romantic relationships, such as receiving disparaging feedback from a romantic partner, LSEs tend to withdraw their emotional investment in the relationship (e.g., Murray et al., 2000; Murray et al., 2002; Wood & Forest, 2016). This self-protective stance causes reduced trust, relationship satisfaction (Uysal, Lin, & Bush, 2012), and intimacy (Stinson et al., 2015). In addition, it can lead to increased conflict between partners (Murray et al., 2006), and may, ultimately, result in the relationship's dissolution altogether. Accordingly, this process perpetuates a vicious cycle wherein LSEs

receive the rejection they anticipate, which further reinforces their low self-esteem. I will now discuss additional pathways through which low self-esteem may impact personal and relational well-being.

### **Potential Pathways Linking the Social Acceptance of Low Self-Esteem and Well-being**

While previous research has focused on numerous pathways linking self-esteem to personal and relational well-being, no research to date has specifically examined how the social evaluation of self-esteem might create or at least exacerbate the link between self-esteem and well-being. Social attitudes about lower self-esteem may impact well-being in at least two ways: (1) LSEs' perceived devaluation simply due to their lower self-esteem status may directly impair well-being; and (2) LSEs' attempts to conceal their lower self-esteem may indirectly impair well-being. Although I will not directly test or measure whether simply feeling rejected or the act of concealment is the driving force behind detriments to well-being, I will focus on discussing these two possibilities to further illustrate how modifying the perceived social evaluation of lower self-esteem may serve to improve LSEs' personal and relational well-being.

With respect to the first pathway, there are two possible mechanisms underlying the association between LSEs feelings of low self-worth and poor well-being. First, given that lower self-esteem is culturally devalued, and LSEs are aware of this negative stereotype, they may internalize these negative beliefs and consider their LSE status a mark of failure or shame (Cameron et al., 2013; Quinn & Earnshaw, 2013). Previous research has found that the more that people believe they are devalued by others based on their concealable stigmatized identity, the worse their reported psychological well-being (e.g., Quinn & Chaudoir, 2009). This effect has been shown in a variety of studies examining concealable stigmatized identities, including epilepsy (Westbrook, Bauman, & Shinnar, 1992), and mental illness (e.g., Graf et al., 2004).

Second, LSEs may be particularly likely to anticipate rejection based on possessing this devalued trait, prompting them to think and behave in ways detrimental to their well-being. Research has shown that anticipating rejection from others is associated with increased social anxiety and withdrawal (London, Downey, Bonica, & Paltin, 2007). As a result, individuals high in rejection sensitivity who feel constantly devalued are less likely to perceive positive interactions with others and often prioritize self-protection goals over seeking interpersonal connections, such as they do with their romantic relationships (Maner, DeWall, Baumeister, & Schaller, 2007). This can lead to feelings of loneliness, negative affect, and a lack of social support (e.g., Mallot, Maner, DeWall, & Schmidt, 2009). Taken together, these findings highlight the negative implications of the implicit theory of self-esteem for those viewed as having lower self-esteem.

However, according to the second proposed pathway, because low self-esteem is devalued, LSEs may be particularly apt to conceal such a trait out of fears that it might lead to their rejection just as people are apt to conceal stigmas (e.g., Quinn & Chaudoir, 2009). Both the intention to conceal and the act of concealing important self-aspects are associated with lower well-being. Across 10 studies, Slepian and colleagues (2017) found that people who think about their secrets more frequently were more likely to experience lower well-being independent of the number of situations they encountered that required actual concealment. The authors contend that the intention to withhold information from others increases feelings inauthenticity which subsequently predicts lower well-being (Slepian et al., 2017; study 9). Overall, the above-mentioned study provides support for the idea that the more an individual is preoccupied with their secret, the more those secrets become a burden, which influences how challenging they perceive other tasks in their life. As a result, living with a secret and having it constantly return to one's mind is what makes concealment depleting. The act of concealing can also be damaging

to personal well-being. Research has shown that those who conceal tend to experience greater distress (Frijns & Fineknauer, 2009), impaired performance (Quinn, Kahng, & Crocker, 2004), strained relationships (Uysal, Lin, Knee, & Bush, 2012), and poor illness trajectories (Ullrich, Lutgendorf, & Stapleton, 2003). While concealment and preoccupation with thoughts of concealment can interfere with LSEs' personal well-being, this process of concealing an important aspect of the self from close others can also have important consequences for LSEs relational well-being.

Concealing aspects of oneself can damage the intimacy of relationships and diminish relational well-being. For example, concealing information from one's partner leads to subsequent relationship dissatisfaction (Dailey & Palomares, 2004; Uysal, Lin, Knee, & Bush, 2012) — an indicator of relational well-being. Complementing these findings, individuals who believed their partner was concealing information from them reported declining marital satisfaction over time (Finkenauer, Kerkhof, Righetti, & Branje, 2009). Given these points, I will now explore whether these detrimental effects can be mitigated for LSEs.

### **Changing Beliefs about the Social Acceptance of Lower Self-Esteem**

If we assume that Western society's attitudes about self-esteem are creating this general sense of felt rejection and concealment among LSEs, leading to detriments in personal and relational well-being, then simply changing LSEs' beliefs about the social evaluation of self-esteem should halt this process. How can we do this? While we cannot change an entire society's actual social beliefs about lower self-esteem, and it might be difficult to directly contradict the social evaluation of self-esteem, it may be possible to provide an example wherein a LSE individual is accepted by others. Moreover, despite their negative self-views, there is no evidence to suggest that LSEs are really any less valuable (Murray et al., 1996, Murray et al., 2000). In

fact, numerous studies have shown that LSEs are accepted and valued just as much by their romantic partner as HSEs (e.g., Murray, Bellavia, et al., 2003; Murray, Griffin, Rose, & Bellavia, 2003). Hence, an example of a LSE person being accepted may act as a subtle reminder that lower self-esteem in itself is not justification for rejection. Such a reminder may be an effective means of changing the social evaluation of self-esteem and thus, the consequences for personal and relational well-being.

In my own previous research, I used this idea and developed an indirect approach to changing beliefs about the social evaluation of self-esteem (Magid, 2017). Participants read a descriptive narrative of an individual who disclosed insecurities to two friends and then were randomly assigned to learn that this self-esteem disclosure was met with either acceptance or rejection. After, participants completed measures regarding their intention to conceal self-esteem from their romantic partner. Results revealed that challenging the assumption that revealing insecurities would lead to rejection, by reading a narrative where one is met with acceptance after revealing insecurities, decreased LSEs' desire to conceal. Although not directly assessed, I suspect that this manipulation reduced the salience of self-esteem contingent rejection for LSEs, which allowed them to feel less ashamed, and subsequently increased their desire to disclose to their romantic partner (Magid, 2017). In light of the above, it is possible that this very manipulation could alleviate the link between lower self-esteem and poor personal and relational well-being.

Therefore, the present study was designed to test whether exposure to the same SALSE descriptive narrative as Magid (2017) will positively influence LSEs' personal and relational well-being in romantic relationships. This is the first experimental study that has tested whether changing the social evaluation of LSE will lead to greater well-being for LSEs. While prior

studies aimed at improving well-being for LSEs have focused on self-affirmation such as having participants describe a value shared with their partner (Lomore, Spencer, & Holmes, 2007), or asking participants to focus on a fault in their partner (Murray et al., 2005), the present study is the first that has attempted to influence general beliefs about self-esteem. The novelty of this approach should contribute to a better understanding of the ways in which LSEs can enjoy more satisfying relationships and greater personal and relational well-being.

In the present study and unlike my previous research, I focused on relational and personal well-being, and did not assess concealment intentions. Accordingly, I operationalized relational well-being using self-report measures of closeness, satisfaction, and optimism for the relationship's future. Although there is no widely agreed upon measure of overall relationship well-being (e.g., Flora & Segrin, 2003; Holmberg & MacKenzie, 2002; Uysal et al., 2012), my selected measures represent commonly used relationship quality indices.

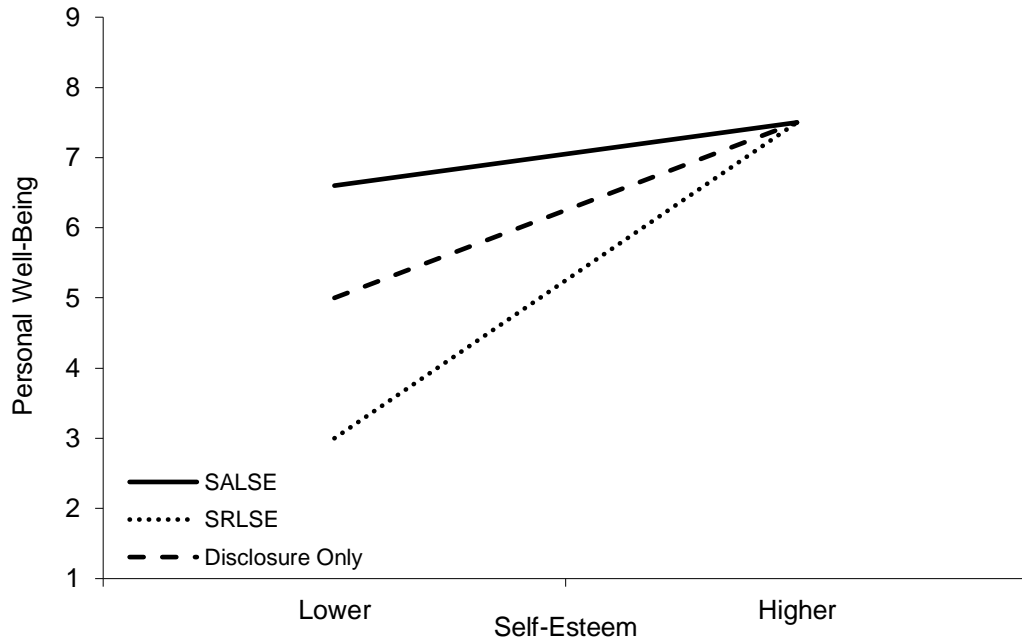
For the present research, I operationalized personal well-being using a composite of two constructs involving life satisfaction and state rumination. While the self-report measures of life satisfaction are consistent with previous conceptualizations of personal well-being (Diener, Emmons, Larsen, & Griffin, 2003), rumination was included due to the depleting nature of anticipating rejection and concealment (e.g., Critcher & Ferguson, 2014). Indeed, ample evidence suggests that thinking about concealing as well as actively concealing information from others is sufficiently depleting and may even lead to self-regulatory impairment (e.g., Lane & Wegner, 1995; Critcher & Ferguson, 2014). Further, rumination may cause individuals to become preoccupied with concealing their low self-esteem, which can amplify negative feelings about the self and exacerbate negative thoughts, leading to reduced personal well-being. Thus, I suggest that rumination may play a vital role in the measurement of personal well-being.

### **Study Overview and Hypotheses**

The present mixed-methods study examined the association between self-esteem and relational and personal well-being. The study utilized a natural predictor (self-esteem), whereby any variance in self-esteem across participants represents pre-existing individual differences. The study also included a true independent variable (condition), wherein participants were randomly assigned to read one of three possible narratives, two of which (i.e., the social acceptability of low self-esteem [SALSE] condition and social rejection of low self-esteem [SRLSE] condition) were adopted from Magid (2017). In one condition, participants were exposed to a scenario aimed at changing the social evaluation of self-esteem. Specifically, the scenario was intended to enhance the social acceptability of lower self-esteem (SALSE condition). In another condition, participants were exposed to a scenario that portrays lower self-esteem as socially devalued, and read about a LSE individual being rejected after disclosing their LSE to two friends (SRLSE condition). The third condition served as a comparison condition wherein participants were exposed to a disclosure only message (disclosure only condition). After exposure to their randomly assigned scenario, participants completed measures of relational and personal well-being to address my primary research questions.

In the present study, I tested several hypotheses. First, I expected to find a self-esteem main effect whereby LSEs would report overall lower well-being than HSEs (Hypothesis 1) as already evident in the literature (e.g., Ford & Collins, 2013; Orth et al., 2012). Second, I predicted a weaker condition main effect whereby individuals in the SALSE condition would report higher well-being than those in the SRLSE and disclosure only condition (Hypothesis 2). Third, I predicted that these main effects would be qualified by an interaction between self-esteem and condition (Hypothesis 3), such that after being exposed to the SALSE scenario, LSEs

would report higher levels of personal and relational well-being than LSEs exposed to the SRLSE and disclosure only scenarios (Hypothesis 3a; see Figure 1). Lastly, for all dependent measures, in the context of the interaction between condition and self-esteem, I expected that HSEs would be unaffected by the conditions and generally report the same levels of personal and relational well-being in all three conditions (Hypothesis 3b).



*Figure 1.* Predicted interaction between self-esteem and condition on personal well-being. Higher values represent greater personal well-being.

### Pilot Study

Prior to testing the main prediction that exposure to the SALSE condition scenario will increase LSEs' personal and relational well-being more than LSEs exposed to the SRLSE and disclosure only condition scenarios, I conducted a pilot study to assess the validity of the manipulation. If the manipulation is effective as intended, the SALSE condition scenario, compared to the SRLSE and disclosure only conditions should (Pilot Hypothesis 1) convey greater acceptance, (Pilot Hypothesis 2) generate more positive attitudes about the social acceptability of self-esteem, and (Pilot Hypothesis 3) produce more positive mood, likely as a

result of the acceptance prime. Furthermore, the narratives in each condition should be equally captivating (Pilot Hypothesis 4). Moreover, if the manipulation is effective, regardless of the self-esteem of the individual, as intended, then there should be no differences in LSEs' and HSEs' perceptions of the SALSE condition scenario. Thus, there should be no interactions between self-esteem and condition across measures.

## Method

**Power analysis.** To determine the number of participants to include in the study, I conducted two different a priori power analyses using G\*Power (Faul, Erdfelder, Buchner, & Lang, 2009). Both power analyses utilized small to moderate effect sizes following effect size conventions established by Cohen (1988).<sup>1</sup> For linear multiple regression tests, results revealed that to obtain power of 0.80 with an alpha level of 0.05 and an effect size of  $f^2 = .085$  (Magid, 2017), a sample size of 146 was necessary. For a multivariate analysis of one-way variance (MANOVA) test, using the same power and alpha level, with an effect size of  $f^2 = .036$ , results indicated a sample of 213 was necessary. These two samples sizes were then averaged for a sample size of 180. An additional 20% was added on to account for potential errors and exclusions resulting in an ideal sample size of 216.

**Participants.** A total of 216 undergraduate students enrolled in Introductory Psychology courses at the University of Manitoba were recruited to participate in exchange for partial course credit. Following data collection, 29 participants were excluded from the analyses. Some were excluded due to failing the attention check (see below;  $n = 11$ ), and others on the basis of having the same response throughout the survey ( $n = 4$ ), taking less than 3 minutes or longer than 30

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<sup>1</sup> According to Cohen's (1988) guidelines,  $f^2 \geq 0.02$ ,  $f^2 \geq 0.15$ , and  $f^2 \geq 0.35$  represent small, medium, and large effect sizes, respectively.

minutes to complete the survey ( $n = 5$ ). Nine of these 29 participants were excluded on the basis of meeting multiple exclusion criteria (see Table 1). Thus, all analyses were conducted on the final sample of 187.

Table 1

*Number of participants meeting combined exclusion criteria (Pilot study)*

Filter Variable	Attention Check	Survey Time	Response Bias	Missing 75%+Survey	Total Survey Time
Attention Check	—	2			
Survey Time	2	—			
Response Bias	2		—		
Missing 75%+ Survey				—	2
Total Survey Time					—

Participants ranged in age from 18 to 46 years ( $M_{age} = 19.98$  years,  $SD = 4.56$ ). The majority of participants indicated their ethnic or cultural background as White/European (71.1%) with the second most common group identity being Filipino (11.8%). In addition, most participants reported being born in Canada (95.2%).

**Materials and Procedure.** Participants were asked to take part in an online study on “*Personality and Stories*.” To reduce experimental demand owing to participants becoming aware of the study’s true purpose, a cover story was employed. Prior to accessing the online survey, participants were informed that the study would be assessing people’s attitudes and beliefs about certain traits, such as self-esteem, and reactions to certain stories. After consenting to participate in the study, all participants first completed a preliminary survey in which they indicated their self-esteem using Rosenberg’s (1965) 10-item global self-esteem measure (see

Appendix A). Participants rated the extent to which they agreed with each self-evaluative statement (e.g., “I feel that I have a number of good qualities”) using a 9-point scale (1 = *disagree strongly*, 9 = *strongly agree*;  $\alpha = .93$ ). They also completed filler items aimed to distract them from the self-esteem focus of the study (see Appendix B).

Following this, participants were randomly assigned to either a SALSE condition, a SRLSE condition (Magid, 2017), or a disclosure only condition (see Appendix C). Across all conditions, participants read a first-person account from a fictional character who discloses low self-esteem to friends. A third of the participants then read that such a disclosure was met with acceptance (*SALSE condition*), a third read that the main character was subsequently rejected (*SRLSE condition*), and a third did not receive any further information (*disclosure only condition*).

Participants then completed a scenario questionnaire consisting of three items assessing their *reactions* to the scenario (e.g., “Interesting”) using a 9-point scale (1 = *Not at all*, 9 = *Very Much*) to further corroborate the cover story regarding the placement of the manipulation in the survey and to ensure that the narratives in each condition were equally captivating (Appendix D). Immediately after, participants completed an *attention check* consisting of three true/false statements (Appendix E). Participants who incorrectly responded to at least two of the three true/false statements did not read or understand the scenario, and therefore, were excluded from the analyses (see Table 2).

Table 2

*Number of participants excluded based on attention check (Pilot study)*

Attention Check Statement	Incorrect responses ( <i>n</i> )	Correct responses ( <i>n</i> )
All three characters in the story worked at Winnipeg beach last summer.	4	199
All three characters in the story really enjoyed scuba diving.	5	209
The main character in the story decides to confide in the other two characters during a walk on the beach.	11	203

To address the first goal of the pilot study, participants indicated the degree of *acceptance* in the narrative by reporting how accepted they thought the main character felt in the scenario (e.g., “After confiding in the other two characters, how accepted does the main character feel?”) using a 9-point scale (1 = *Not at all*, 9 = *Extremely*; Appendix F). Because the three acceptance items were adequately correlated with one another, ( $r = .84$  to  $.95$ ,  $p < .001$ ), they were combined into one index ( $\alpha = .96$ ).

To address the second goal of the pilot study, participants were asked to complete questions on their *personal evaluation of self-esteem* (Cameron, 2016; unpublished), wherein they indicated the extent to which they agreed with each statement (e.g., “I would prefer to have high self-esteem”) using a 9-point scale (1 = *very strongly disagree*, 9 = *very strongly agree*; see Appendix G;  $\alpha = .76$ ). For scoring, one item was reverse coded and then aggregated with positive valence items where higher scores indicated a greater preference for HSEs and belief that high self-esteem is more valuable than low self-esteem. Then, to assess how much they endorsed lay theories of self-esteem, participants completed a 7-item *endorsement of self-esteem lay theories* scale (Cameron, 2016; unpublished). They rated seven characteristics based on whether they think the trait is more characteristic of high or low self-esteem (e.g., “Likeable”; “Desirable”; “Friendly”) using a 9-point scale (1 = *Only low self-esteem people have this characteristic*, 9 =

*Only high self-esteem people have this characteristic*; see Appendix H;  $\alpha = .61$ ). For scoring, items were aggregated, with higher scores indicating the belief that high self-esteem is better than low self-esteem.

To address the third goal of the pilot study, participants completed the Positive and Negative Affect Schedule Short Form (PANAS-SF) to indicate their current feelings (e.g., “excited”) using a 9-point scale (1 = *Very slightly or not at all*, 9 = *Extremely*; see Appendix I). The scale had excellent reliability for positive affect and negative affect ( $\alpha = .90$  for both).

Finally, participants completed a demographic questionnaire (e.g., ethnic cultural background) and verification questions in the form of yes/no responses (Appendix J).

Participants completed the measures in the order in which they were described above. Means and standard deviations for all the scales and subscales are shown following the description of measures below (Table 3).

Table 3

*Means and Standard Deviations of Pilot Study Variables overall and by Condition*

Variable	Condition			
	M (SD)	SALSE M (SD)	SRLSE M (SD)	Disclosure Only M (SD)
Age (years)	19.98 (4.56)	20.54 (5.37)	19.62 (3.90)	19.82 (4.41)
Self-Esteem	6.21 (1.71)	6.27 (1.65)	6.01 (1.75)	6.35 (1.72)
Acceptance Detection	5.38 (1.67)	8.00 (1.28)	1.42 (1.03)	6.94 (1.67)
Interesting rating	5.22 (2.22)	4.55 (2.29)	5.84 (2.00)	5.19 (2.22)
Well-written rating	5.62 (1.95)	5.32 (2.10)	5.77 (1.77)	5.75 (1.97)
Realistic rating	6.46 (2.33)	6.41 (2.35)	6.12 (2.39)	6.84 (2.22)

Personal Evaluation of Self-Esteem	7.30 (1.13)	7.42 (1.15)	7.19 (1.12)	7.31 (1.11)
Endorsement of Self- Esteem Lay Theories	5.56 (.69)	5.72 (.71)	5.56 (.72)	5.43 (.60)
Positive Affect	4.01 (1.95)	4.44 (1.80)	3.57(1.99)	4.04 (1.98)
Negative Affect	2.54 (1.64)	2.41 (1.58)	2.54 (1.64)	2.67 (1.72)

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*Note.* Lower scores on Negative affect represent lower negative affect. Rating items = scenario reaction ratings.

### Results

**Analytic strategy.** First, in order to examine the four main pilot hypotheses, I planned to conduct two one-way multivariate analysis of variance (MANOVA) with scenario reactions as one set of dependent variables and acceptance measures as the other set of dependent variables. Because the remaining dependent measures were uncorrelated with each other, I conducted a series of one-way ANOVAs with perceptions of main character's acceptance, positive affect, negative affect, perceived social evaluation of self-esteem, and endorsement of self-esteem lay theories as the dependent variables. All tests used condition (SALSE vs. SRLSE vs. disclosure only) as the sole independent variable, and Tukey's HSD was used for all post-hoc tests except where stated otherwise.

To test whether participants' self-esteem influenced their experience of the manipulation, I conducted a series of hierarchical multiple regressions in which self-esteem (mean-centered:  $M = 6.21$ ,  $SD = 1.71$ ) and condition represented by two dummy coded variables (dummy 1: 1 = SALSE, 0 = disclosure only and SRLSE; dummy 2: 1 = SRLSE, 0 = disclosure only and SALSE) were entered in the first step and the two-way interactions between these variables entered in the second step. Effects were interpreted at the step in which they were entered, and when a

significant interaction emerged tests of simple effects were conducted according to Aiken and West's (1991) recommendations. As there were four dependent measures, four regressions were conducted in total.

***Scenario acceptance detection.*** To test whether there was a difference in how accepted participants thought the main character felt between conditions, I initially conducted the one-way MANOVA as described above including all three acceptance items. However, the assumption of equality of covariance matrices and homogeneity of variance (i.e., Levene's test) for each of the dependent variables were violated when running a MANOVA. Therefore, in order to meet the assumption of homogeneity of variance, I combined the three acceptance items into one index and ran as a one-way ANOVA. For post hoc tests of simple effects, a Games-Howell correction was applied as it is robust to violations of equal variances and has been recommended if there is any doubt that population variances are equal (Games & Howell, 1976; Field, 2013). The analysis revealed a main effect of condition on perceptions of the main character's acceptance,  $F(2, 183) = 425.81, p < .001, \eta_p^2 = .82$ . Post-hoc tests revealed that participants thought the main character felt more accepted following exposure to the SALSE condition scenario compared to participants in the SRLSE and disclosure only condition scenarios (all  $ps < .001$ ). In addition, participants who read the disclosure only condition scenario thought the main character felt more accepted than those who read the SRLSE condition scenario ( $p < .001$ ; see Table 4).

Table 4

*Means and Standard Deviations for post-hoc tests*

Variable	Condition		
	SALSE	SRLSE	Disclosure Only
	Mean (SD)	Mean (SD)	Mean (SD)
Acceptance detection	8.00 <sub>a,c</sub> (1.28)	1.42 <sub>b</sub> (1.03)	6.94 <sub>c</sub> (1.67)
Positive affect	4.44 <sub>a</sub> (1.80)	3.57 <sub>b</sub> (1.99)	4.05 <sub>a,b</sub> (1.98)
Negative affect	2.41 <sub>a</sub> (1.58)	2.54 <sub>a</sub> (1.64)	2.67 <sub>a</sub> (1.72)
Personal evaluation of self-esteem	7.42 <sub>a</sub> (1.15)	7.19 <sub>a</sub> (1.12)	7.30 <sub>a</sub> (1.13)
Endorsement of self-esteem lay theories	5.72 <sub>a</sub> (.71)	5.56 <sub>a</sub> (.72)	5.42 <sub>a</sub> (.60)

*Note.* Means that do not share a subscript differ significantly.

***Social acceptability of self-esteem.*** Did participants in the SALSE condition perceive low self-esteem as more socially acceptable than the SRLSE and disclosure only conditions? No, results revealed no significant differences in the perceived social evaluation of self-esteem between conditions,  $F(2, 184) = .63, p = .536$ . Similarly, no significant differences emerged in participants' endorsement of self-esteem lay theories between conditions,  $F(2, 184) = 2.86, p = .060, \eta_p^2 = .030$ .

***Positive and negative affect.*** Results revealed a significant difference in positive affect between conditions,  $F(2, 184) = 3.15, p = .045, \eta_p^2 = .033$ . Providing support that the SALSE condition scenario was effective in producing a more positive mood, post-hoc analyses revealed that mean positive affect was significantly higher for participants who read the SALSE scenario compared to participants who read the SRLSE scenario ( $p = .013$ ). No significant differences emerged between participants exposed to the disclosure only condition scenario compared to the

SRLSE or the SALSE condition scenarios. In addition, results revealed no significant differences between conditions for negative affect,  $F(2, 184) = .39, p = .675, \eta_p^2 = .004$  (Table 4).

**Reactions.** Did participants perceive the narrative in each condition as equally captivating? No, a MANOVA comparing participants reactions across the three different conditions revealed that participants differed in their reaction to each of the three scenario narratives,  $F(6, 360) = 2.85, p = .010, \eta_p^2 = .05$ . Specifically, follow-up univariate tests showed that participants' reactions were significantly different in response to the reaction item "interesting,"  $F(2, 181) = 5.42, p = .005, \eta_p^2 = .06$ . A post-hoc test further indicated that participants in the SRLSE condition ( $M = 5.84, SD = 2.00$ ) perceived their narrative as more interesting than participants in the SALSE condition ( $M = 4.55, SD = 2.29$ ); participants in the disclosure only condition ( $M = 5.19, SD = 2.22$ ) did not perceive their narrative as significantly different from the other two conditions.

**Does participant's self-esteem influence the effectiveness of the manipulation?** No. In all regressions, no significant interactions emerged between participants' self-esteem and condition. In short, the findings from the regression analyses suggest that participants did not see the condition scenarios differently, regardless of their self-esteem level. Self-esteem did, however, influence how people reacted, in general. Specifically, and as expected, positive affect and negative affect were predicted by participants' self-esteem,  $\beta = .36, t(186) = 5.33, p < .001$ , and,  $\beta = -.45, t(186) = -6.84, p < .001$ , respectively.

## Discussion

The main objective of this pilot study was to assess the validity of the manipulation by ensuring the SALSE condition compared to SRLSE and disclosure only conditions: (1) conveyed greater acceptance, (2) generated more positive attitudes about the social acceptability

of low self-esteem, and (3) produced more positive mood. Results revealed mixed support for the manipulation.

In terms of the first goal, participants in the SALSE condition scenario perceived more acceptance of the main character compared to the SRLSE and disclosure only condition scenarios. In terms of the second goal, contrary to what was expected, participants in the SALSE condition scenario did not perceive lower self-esteem as more socially acceptable than participants in the SRLSE and disclosure only conditions. Although the ideal results would have included participants in the SALSE condition reporting more positive attitudes towards lower self-esteem, that is not what the pilot study revealed. As the two dependent measures for attitudes towards lower self-esteem are relatively new, it is possible that they simply did not capture attitude change. The items included in these measures are also rather direct and might have alerted participants to respond in more socially desirable manner.

With respect to the third goal, results revealed that the SALSE condition scenario was effective in producing a more positive mood. Specifically, participants who read the SALSE condition scenario reported higher positive affect compared to those exposed to the SRLSE and disclosure only condition scenarios. Perhaps it is not surprising that in the SALSE condition, where people perceived the most acceptance, they also experienced the most positive moods.

Although support for using the manipulation in the present pilot study was mixed, I decided to retain the narratives in the main study to test my primary predictions. If predictions involving the condition narratives (Pilot Hypotheses 2 and 3) are supported in the main study, then such effects might be driven by perceptions of acceptance of the main character or by enhanced positive mood.

## Main Study

### Method

**Power analysis.** The number of participants included in the main study was based on the same a priori power analysis as in the pilot study (i.e., 213). An additional 20% was added on to account for potential errors and exclusions resulting in an ideal sample size of 256.

**Participants.** A total of 159 undergraduate students enrolled in Introductory Psychology courses at the University of Manitoba were recruited to participate in exchange for partial course credit (*university sample*). An additional 128 participants were recruited through Amazon TurkPrime ([www.turkprime.com](http://www.turkprime.com)) and received US \$1.00 for completing the survey (*online sample*), leaving a total sample of 287. Seventy-one participants were excluded from further analyses on the basis of responding incorrectly to more than one of three attention check statements ( $n = 18$ ), being in a relationship for less than three months ( $n = 13$ ), having lived in the USA or Canada for less than five years and not being born in a western country ( $n = 11$ ), and taking less than three minutes to complete the survey or exceeding four standard deviations above the mean completion time of 14.45 minutes ( $n = 1$ ). Additional participants were excluded due to taking a break of longer than five minutes from the survey ( $n = 1$ ) and reporting a number or nonsense response for the question in the survey that asks for their romantic partners' initials ( $n = 5$ ). Twenty-two of these 71 participants were excluded because of multiple exclusion criteria (see Table 5). The final sample consisted of 216 participants (105 men, 110 women, and 1 who identified as 'gender flux').

Table 5

*Number of participants meeting combined exclusion criteria (Main study)*

Filter Variable	Attention Check	Relationship Length	Birthplace not NA/Western	Survey Break Length	Romantic Partner Initials	Total Survey Time	Missing 75%+ survey
Attention check	—	—	—	—	—	—	—
Relationship Length	1	—	3			1 <sup>d</sup>	
Birthplace not NA/Western	4 <sup>a</sup>		—		1 <sup>b</sup>		
Survey Break Length				—			
Romantic Partner Initials	5		2		—		
Total Survey Time	2 <sup>c</sup>					—	
Missing 75%+ Survey							—

*Note.* Subscript letters reflect the following: <sup>a</sup> = two of these participants also had issues with romantic partner initials; <sup>b</sup> = also reported relationship duration > 3 months; <sup>c</sup> = one of these participants also had significant missing data; <sup>d</sup> = also had significant missing data.

Participants ranged in age from 18 to 64 years ( $M_{age} = 26.40$  years,  $SD = 10.12$ ). Forty-four-point three percent of participants were born in either the USA (45.4%) or Canada (35.6%), while 19% specified being born elsewhere. The majority of participants indicated their ethnic or cultural background as White/European (51.9%) followed by the next most common group identities of Indigenous (8.8%), Black, or Filipino (both 8.3%). Participants reported relationship lengths between three and 534 months, with an average of approximately four years ( $M = 51.01$ ,  $SD = 75.81$ ). The majority of participants were exclusively dating (44%) with the next most

common relationship status being married (18.1%) or casually dating (17.1%). See Table 6 for demographic data by sample.

Table 6

*Demographics by sample*

Variable	University Sample	Online Sample
Mean age ( <i>SD</i> )	19.72 (3.03)	34.53 (9.76)
Gender	64.2% women (35% men)	34.4% women (65.6% men)
Birthplace		
Canada	64.2%	0.0%
USA	3.3%	97.9%
Elsewhere	32.5%	2.1%
Ethnicity		
White/European	43.3%	62.5%
Indigenous	11.7%	5.2%
Black/African American	2.5%	15.6%
Filipino	15.0%	16.7%
Other	27.5%	0.0%
Relationship Status		
Married	1.7%	38.5%
Engaged	1.7%	11.5%
Living together	9.2%	10.4%
Exclusive dating	53.3%	32.3%
Dating multiple people	1.7%	0.0%
Casual dating	27.5%	4.2%
Long distance	5.0%	3.1%
Relationship duration		
Under 6 months	27.5%	2.1%
7 months – 12 months	18.3%	4.2%
13 – 24 months	19.2%	13.5%
< 24 months	35%	75%

**Procedure.** Participants were asked to take part in an online study on “*Personality, Stories, and Beliefs in Romantic Relationships*” through the University of Manitoba psychology research pool (see Appendix K), or through TurkPrime (see Appendix L). The procedure differed slightly by sample as outlined below.

**University Sample.** Participants from the University of Manitoba psychology research pool were run in groups of up to 20, in a large computer lab facility, with seats arranged in rows of six computers each. When they first arrived, the experimenter greeted and escorted them into the lab where they were seated individually in front of a computer monitor, at every other computer to avoid cluttering and maintain participants' feelings of privacy. Participants were first presented with a consent form on the computer screen (Appendix M) before proceeding to the rest of the online survey.

**Online Sample.** Participants recruited through Amazon's TurkPrime accessed the survey directly through Turkprime.com. They first completed a consent form to participate (see Appendix N), and then proceeded to the online survey.

**Both Samples.** After indicating their consent, both Introductory Psychology students and TurkPrime participants completed a preliminary survey assessing basic demographics and self-esteem. Participants then read a first-person account from a fictional character. The character was given no name nor gender with the hope that they would identify with the main character. As in the pilot study, participants were randomly assigned to one of the same three condition scenarios: the SALSE condition, SRLSE condition, and disclosure only condition.

Following the manipulation, participants reported their reactions to the scenario using the same items as in the pilot study. They were then asked to complete the dependent variables of relational and personal well-being. After completion of the survey, participants from the online sample received an online feedback form which explained the full purpose of the study, while Introductory Psychology students received the same feedback in paper format from two research assistants outside of the lab prior to leaving (see Appendix O).

## Measures

The measures are described in the order in which they appeared to participants who completed the survey.

**Preliminary Survey.** Participants were asked to answer two questions regarding their demographic characteristics (gender and age). They were then asked to complete the same self-esteem measure as in the pilot study ( $\alpha = .90$ ). To distract participants from the focus on self-esteem, participants also completed the Ten Item Personality Inventory (TIPI; Gosling, Rentfrow, & Swann, 2003) where they indicated the degree to which they identify with each trait (e.g., “Extraverted, Enthusiastic”) using a 9-point scale (1 = *Strongly Disagree*, 9 = *Strongly Agree*). This scale was not analyzed.

**Relational well-being.** After participants read their randomly assigned scenario, they reported their *reactions* to the scenario using the same questionnaire as in the pilot study. To center participants’ focus, they then completed a relationship demographics section prior to completing the relational well-being measures. Relational well-being measures of closeness, satisfaction, and optimism for the future were moderate to highly intercorrelated ( $r = .49$  to  $.72$ ). As correlation coefficients indicate the degree to which measures “tap the same construct” (Stansfield & Ross, 1988), they were subsequently standardized and aggregated for my main analysis.

**Relationship demographics.** Participants listed their partners’ initials, so they would remain focused on that specific individual when answering the questions, partner’s age (in years), and partner’s gender. Participants were then asked to choose one of seven descriptions that best defines the current status of their relationship (e.g., married, casual dating, living together) along with the length of the relationship (in months and years; Appendix P).

**Relationship closeness.** To evaluate self-other merging, which is tied to relationship closeness, participants completed the one-item Inclusion of Other in the Self Scale (IOS; Aron et al., 1992). The IOS is a pictorial measure that includes Venn diagrams that vary according to the conceptual merging of the self and the romantic relationship partner. Participants were asked which of seven pictures best describes their relationship, with higher scores indicating more relational closeness (Appendix Q).

**Satisfaction.** To assess satisfaction with one's relationship, participants then completed a 4-item relationship satisfaction measure (adapted from Murray, Holmes, & Griffin, 1996a, b; Appendix R). Participants rated the extent to which they agreed with each statement (e.g., "I am extremely happy with our relationship") using a 9-point scale (1 = *not true at all*, 9 = *extremely true*). Items were collapsed into a total score whereby higher values represent greater relational satisfaction. This measure showed good reliability ( $\alpha = .88$ ).

**Optimism for the future.** To assess optimism for the future of one's relationship, participants completed a 7-item Optimism for the Relationship's Future scale (modified from MacDonald & Ross, 1999). Participants were asked to predict the likelihood that their relationship with their current partner will last for 2 months, 6 months, 1 year, 5 years, and a lifetime using an 11-point scale (1 = 0%, 11 = 100%). Scores were aggregated with higher scores indicating more optimism for the future of the relationship and showed excellent reliability ( $\alpha = .92$ ; Appendix S).

**Personal well-being.** To assess personal well-being, participants completed two measures. The two personal well-being measures of satisfaction with life and perceived rumination were moderately and positively correlated ( $r = .41$ ), and thus, were aggregated (standardized) for my main analysis.

***Perceived rumination.*** In order to evaluate state rumination, participants subsequently completed a 6-item Brief State Rumination Inventory (modified from Marchetti, Mor, Chiorri, & Koster, 2018). Participants responded to each item in terms of how they felt in the present moment (e.g., “Right now, I wonder why I always feel the way I do”) using a 9-point scale (1 = *strongly disagree*, 9 = *strongly agree*; Appendix T). For scoring, items were reverse coded and collapsed into a single score whereby higher values reflect less state rumination ( $\alpha = .94$ ).

***Satisfaction with life.*** To assess participants’ overall judgement of their life and measure current feelings of life satisfaction, they completed the 5-item Satisfaction with Life Scale (Diener, Emmons, Larsen, & Griffin, 1985; see Appendix U). Participants indicated the extent to which they agreed with each self-evaluative statement (e.g., “I am satisfied with my life”) using a 7-point scale (1 = *strongly disagree*, 7 = *strongly agree*). The scale was modified by adding “right now” to tap into state-based feelings. Items were collapsed into a single score whereby higher values represent greater life satisfaction ( $\alpha = .89$ ).

***Demographic questionnaire.*** Participants were subsequently asked to provide demographic information pertaining to where they were born, their first language, and how long they have spoken English (in years and months) if it was not their first language. In addition, they were asked to indicate their ethnic or cultural background. Participants from the online sample were asked to provide additional demographic information regarding their occupation and highest level of education obtained (Appendix V). Participants who indicated that they were not born in the US or Canada, or other western country, and had not lived in Canada or the US for at least five years or longer were excluded from the analyses, as self-esteem is viewed differently in other cultures (i.e., Japanese), and thus, may be considered a culturally bounded construct (e.g., Anthony et al., 2007; Kitayama, Marcus, Matsumoto, & Norasakkunkit, 1997).

For instance, extant literature suggests that individuals raised in Japanese culture tend to have more interdependent self-construals than those from Western cultures (e.g., Brown, Cai, Oakes, & Deng, 2009; Heine, Lehman, Markus, & Kitayama, 1999).

***Integrity check.*** To ensure there was no time lapse during participation that might undermine the effectiveness of the manipulation, participants were asked to respond to a yes/no question regarding whether they took a break. Specifically, participants who answered “yes” to “I took breaks from the survey to do other things (e.g., check my email, answer the phone)” were asked to report the length of their break. Those who indicated taking a break of longer than 5 minutes were excluded from data analysis. Participants were also asked if there was anything else they would like to add about the survey and were provided with space to include their own comments. The comments were reviewed for identification of hypothesis or suspicion of the manipulation (see Appendix W).

## **Results**

All analyses were conducted on the final sample of 216 participants as described above.

***Analytic strategy.*** In order to test my main hypotheses, I conducted hierarchical multiple regressions in which self-esteem (mean centered;  $M = 6.59$ ,  $SD = 1.50$ ) and condition dummy coded (dummy 1: *disclosure only* = 1, *SALSE* and *SRLSE* = 0; dummy 2: *SRLSE* = 1, *SALSE* and *disclosure only* = 0) were entered in the first step and the two-way interactions between these variables were entered in the second step to predict relational and personal well-being. Effects were interpreted at the step in which they were entered, and when a significant interaction emerged, tests of simple effects were conducted according to Aiken and West’s (1991) recommendations. As there were two dependent variables of well-being, two regressions were conducted in total.

**Preliminary analyses.** First, I tested for possible sample differences in relational and personal well-being scores. An independent samples t-test revealed that Introductory Psychology student participants ( $M = -.07, SD = .85$ ) reported poorer relational well-being than TurkPrime participants ( $M = .33, SD = .71$ ),  $t(214) = -3.73, p < .001$ . Similarly, Introductory Psychology student participants ( $M = -.14, SD = .73$ ) reported lower personal well-being than TurkPrime participants ( $M = .34, SD = .91$ ),  $t(214) = -4.29, p < .001$  (Table 7). Second, I tested for possible gender differences in relational and personal well-being scores. An independent samples t-test revealed that men ( $M = .23, SD = .74$ ) reported higher relational well-being than women ( $M = -.02, SD = .86$ ),  $t(213) = 2.30, p = .022$ . However, no significant differences in gender emerged on reports of personal well-being,  $t(213) = 1.83, p = .070$  (Table 8).

Table 7

*Means and Standard Deviations of all dependent measures by Sample*

Variable	University Sample	Online Sample
	Mean (SD)	Mean (SD)
Relational Well-Being	-.07 (.85)	.33 (.70)
Satisfaction	7.27 (1.93)	7.61 (1.47)
Optimism for the future	7.74 (2.89)	9.02 (2.25)
Relationship closeness	4.86 (1.42)	5.72 (1.38)
Personal Well-Being	-.14 (.73)	.34 (.91)
Satisfaction with life	6.88 (1.97)	8.00 (2.40)
Perceived rumination	5.00 (1.76)	6.40 (2.50)

Table 8

*Means and Standard Deviations of all dependent measures by Gender*

Variable	Men	Women
	Mean (SD)	Mean (SD)
Relational Well-Being	.23 (.74)	-.02 (.86)
Satisfaction	7.54 (1.53)	7.29 (1.93)

Optimism for the future	8.80 (2.43)	7.83 (2.86)
Relationship closeness	5.44 (1.42)	5.04 (1.48)
Personal Well-Being	.18 (.88)	-.03 (.81)
Satisfaction with life	7.20 (2.17)	7.19 (2.23)
Perceived rumination	6.10 (2.32)	5.17 (2.05)

**Main analyses.** As a first step towards addressing my predictions, I examined intercorrelations between relational well-being indices and personal well-being indices. As there were no particularly surprising results and all measures making up each composite of relational and personal well-being were intercorrelated (Table 9), I proceeded to my main analyses.

Table 9

*Intercorrelations between relational and personal well-being measures*

Variable	Relational Well-Being			Personal Well-Being	
	1	2	3	4	5
1. Satisfaction	—	—	—		
2. Optimism for the future	.71**	—	—		
3. Relationship Closeness	.48**	.54**	—		
4. Satisfaction with Life	.41**	.38**	.39**	—	—
5. Perceived Rumination	.39**	.32**	.23**	.41**	—

*Note.* \*\* $p < .01$ . Higher scores on perceived rumination = less rumination.

**Relational and personal well-being.** To test my main hypotheses, I first conducted the described regressions with relational and personal well-being, separately, as the dependent variables. Was lower self-esteem associated with lower relational well-being (Hypothesis 1)? Yes, the analyses revealed a main effect of self-esteem on relational well-being,  $\beta = .36$ ,  $t(212) = 5.61$ ,  $p < .001$ , indicating that LSEs ( $\hat{Y} = -.17$ ) across conditions reported lower relationship well-being compared to HSEs ( $\hat{Y} = .41$ ). A main effect of self-esteem on personal well-being also emerged,  $\beta = .43$ ,  $t(212) = .77$ ,  $p < .001$ , whereby LSEs reported lower personal well-being ( $\hat{Y} =$

-.55) compared to HSEs ( $\hat{Y} = .74$ ) across conditions. Thus, my prediction that LSEs would report overall lower well-being than HSEs received strong support, consistent with numerous other studies in the literature (e.g., Diener & Diener, 2009; Dumont & Provost, 1999; Heimpel et al., 2002; Kuster et al., 2013).

Did participants' well-being differ by condition (Hypothesis 2)? No, results illustrated that there was no significant main effect emerged for condition on relational or personal well-being. Thus, Hypothesis 2 was not supported.

Did condition moderate the association between self-esteem and well-being (Hypothesis 3)? No, the analysis revealed no significant interactions between self-esteem and condition for relational and personal well-being. Thus, hypothesis 3a was not supported.

Did condition affect HSEs' reports of relational and personal well-being (Hypothesis 3b)? While no interaction between condition and self-esteem emerged as significant, HSEs reported similar relational and personal well-being scores across all conditions (see Table 10).

Table 10

*Predicted Relational and Personal Well-being scores for HSEs and LSEs across conditions*

Variable	Condition		
	SALSE	SRLSE	Disclosure Only
	$\hat{Y}$	$\hat{Y}$	$\hat{Y}$
HSEs			
Relational Well-Being	0.41	0.36	0.51
Personal Well-Being	0.74	0.61	0.68
LSEs			
Relational Well-Being	-0.17	-0.17	-0.22
Personal Well-Being	-0.55	-0.57	-0.61

**Exploratory analyses.** For exploratory purposes, I then conducted the same regressions described above on each of the dependent variables making up relational and personal well-being separately. Not surprisingly, self-esteem significantly predicted relational well-being for each of the three relational well-being indices (i.e., satisfaction, optimism for the relationship's future, and closeness) and each of the two personal well-being indices (satisfaction with life and perceived rumination) in support of Hypothesis 1 (see Table 11).

Again, mirroring the aggregate findings previously reported, there were no condition main effects, failing to provide support for Hypothesis 2. Moreover, none of the interactions emerged as significant.

Table 11

*Main effects of self-esteem on relational and personal well-being indices*

Variable	Self-Esteem Level		$\beta$	$t$	$p$
	Lower	Higher			
<b>Relational Well-Being</b>					
Satisfaction	6.68	8.11	.41	6.53	< .001
Optimism for the future	7.49	9.09	.30	4.55	< .001
Closeness	5.03	5.65	.21	3.10	.002
<b>Personal Well-being</b>					
Satisfaction with Life	5.92	8.21	.52	8.90	< .001
Perceived Rumination	4.16	7.59	.77	17.56	< .001

*Note.*  $df = 212$ .

**Additional exploratory analyses.** To test whether sample influenced how self-esteem and/or condition influenced relational and personal well-being, I ran the same hierarchical multiple regressions as above but included sample (1 = *Online sample*, 0 = *University Sample*) as a predictor in the first step alongside self-esteem and condition, the two-way interactions

between all three predictors in the second step, and the two three-way interactions in the third step to predict both composite relational and personal well-being scores. I then ran the same regressions again to predict each component separately.

Did sample affect participants' reports of relational and personal well-being? As already described in the preliminary analysis, sample did affect both forms of well-being. The analysis revealed a main effect of sample for the relational well-being composite score, as well as for two of the three measures of relational well-being (relationship closeness and optimism for the relationship's future), such that the online participants were more likely to report higher overall relational well-being, as well as higher relationship closeness and optimism for the relationship's future than university students (see Table 12).

Table 12

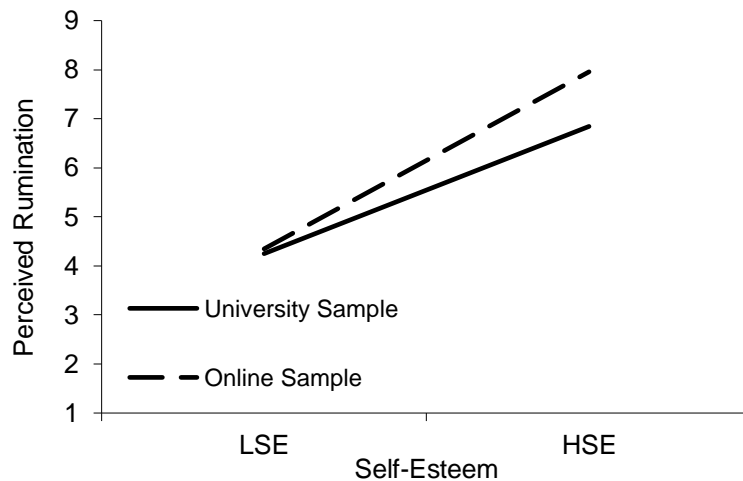
*Main effects of sample on relational and personal well-being*

Variable	Sample		$\beta$	$t$	$p$
	University Sample	Online Sample			
	$\bar{Y}$	$\bar{Y}$			
Relational Well-Being	.02	.28	.16	2.44	.016
Satisfaction	7.42	7.37	-.01	-.22	.829
Optimism for the future	7.92	8.82	.17	2.47	.014
Relationship closeness	5.03	5.79	.26	3.78	< .001
Personal Well-being	.04	.18	.08	1.73	.085
Satisfaction with life	7.03	7.11	.02	.31	.757
Perceived rumination	5.66	6.18	.12	2.58	.010

*Note.* Higher scores on perceived rumination = less rumination.  $df = 211$ .

As shown in Table 13, a main effect of sample on the personal well-being measure of perceived rumination also emerged, wherein participants in the online sample reported less

perceived rumination compared to those in the university sample,  $\beta = .12$   $t(206) = 2.58$ ,  $p = .010$ . In addition, an interaction between sample and self-esteem emerged,  $\beta = .17$   $t(206) = 2.49$ ,  $p = .014$ , such that those in the online sample ( $M = 5.72$ ,  $SD = 2.17$ ) had higher self-esteem than those in the university sample ( $M = 5.50$ ,  $SD = 2.22$ ; see Figure 3). Decomposing the interaction revealed a main effect of self-esteem in both samples, but was weaker in the university sample,  $\beta = .60$ ,  $t(212) = 8.51$ ,  $p < .001$ , compared to the online sample,  $\beta = .83$ ,  $t(212) = 14.38$ ,  $p < .001$ , though not significantly,  $t(212) = 1.70$ ,  $p = .090$ . Further, results revealed a sample effect for HSEs,  $\beta = .23$ ,  $t(212) = 3.63$ ,  $p < .001$ , such that HSEs in the online sample reported less perceived rumination than HSEs in the university sample. Notably, within the context of the interaction, LSEs in both the online sample and university sample reported similar levels of perceived rumination ( $\hat{Y} = 4.35$  and  $\hat{Y} = 4.25$ , respectively).



*Figure 2.* Interaction between sample and self-esteem on Perceived Rumination. Higher values represent less perceived rumination.

Importantly, sample interacted with self-esteem suggesting that the link between self-esteem and rumination differed by the source of recruited participants (and their subsequent procedure in completing the survey). However, the lack of interactions with condition suggests that the predicted interaction (Hypothesis 3) was not present for one sample over another.

Next, to test whether gender influenced the relationship between self-esteem, condition, and well-being, I ran the same hierarchical multiple regressions as described above, except I included gender (1 = *women*, 0 = *men*) instead of sample. As described in the preliminary analysis, gender affected both relational and personal well-being. There was a main effect of gender for the relational well-being composite score and for two of the three relational well-being variables (relationship closeness and optimism for the relationship's future), as well as for the personal well-being measure of perceived rumination, such that women reported less relational closeness and optimism for the relationship's future, and more perceived rumination compared to men and (see Table 13).

The lack of significant interactions suggests that regardless of the gender of the recruited participants, self-esteem similarly predicted personal and relational well-being measures, and thus, Hypothesis 3 was not supported for one gender relative to another.

Table 13

*Main effects of Gender on relational and personal well-being*

Variable	Gender		$\beta$	$t$	$p$
	Men	Women			
	$\hat{Y}$	$\hat{Y}$			
Relational Well-Being	.20	.00	-.12	-1.90	.059
Optimism for the future	8.64	7.79	-.16	-2.38	.018
Closeness	5.49	5.15	-.11	-1.68	.095
Personal Well-being	.13	.05	-.05	-1.14	.257
Perceived Rumination	6.15	5.55	-.13	-3.06	.002

*Note.* Higher scores on perceived rumination = less rumination.  $df = 206$ .

## **Discussion**

As expected, the results of this study demonstrated that LSEs across conditions, reported lower composite relational and personal well-being. Contrary to what I had predicted, no main effect of condition on personal and relational well-being emerged, indicating that individuals in the SALSE condition did not report higher levels of well-being compared to those in the SRLSE and disclosure only condition, and thus, support for hypothesis 2 was not found.

Additionally, support for hypothesis 3 and 4 was not found. The absence of a significant interaction between self-esteem and condition suggests that exposure to the SALSE condition scenario had no impact on LSEs personal and relational well-being. Additional conjectures as to why this may have occurred will be discussed below in the General Discussion.

### **General Discussion**

The present study underscores the eminent link between self-esteem and well-being. Consistent with previous literature, the overarching findings of the study indicate that lower self-esteem was associated with decreased positive mood (Pilot Study) and decreased relational and personal well-being (Main study). With regard to the first finding, LSEs reported less positive affect and more negative affect compared to HSEs regardless of condition, which is in line with a wealth of prior research demonstrating that LSEs are more prone to experiencing negative emotional states than HSEs (e.g., Greenberg et al., 1991; Wood et al., 2009). This is not surprising given that people are generally inclined to maintain moods that they view as typical of themselves (Mayer & Steven, 1994). Thus, because LSEs are more apt than HSEs to experience negative moods (e.g., Watson et al., 2002), it may be that they perceive sadness or negative mood as more normal than HSEs. They may also be less motivated than HSEs to improve their mood because they have low expectations that they can do so effectively (Heimpel et al., 2002).

In terms of relational well-being, self-esteem was strongly associated with each of the three relational well-being indices. Specifically, LSEs reported lower relationship satisfaction, optimism for the future, and relationship closeness compared to HSEs. These findings replicate previous work regarding the association between self-esteem and relational well-being variables (e.g., Murray et al., 2001; Orth et al., 2012; Murray et al., 2000; Robinson & Cameron, 2012; Sciangula & Morry, 2009). One possible explanation for this finding is that LSEs are inclined to detect less acceptance from their romantic partner. To explain, LSEs are hypervigilant for signs of rejection and quick to perceive interpersonal rejection from close others, which prompts them to hold inaccurate beliefs about their own worth and competencies (Baumeister et al., 2003), as well as underestimate their partners' love and regard for them (e.g., Murray et al., 2000). Because self-esteem plays a vital role in relationship quality (DeHart et al., 2004), these maladaptive tendencies may consequently lead to reduced relationship satisfaction, optimism for the future, and relationship closeness for LSEs compared to their HSE counterparts.

In accordance with a considerable body of literature and thus as expected, the present study also revealed that lower self-esteem was associated with lower personal well-being (i.e., satisfaction with life and perceived rumination). This again confirms findings in the literature which suggest that self-esteem is strongly related to subjective well-being (e.g., Paradise & Kurnis, 2002), life satisfaction (e.g., Boden, Fergusson, & Horwood, 2008; Diener & Diener, 1995; Diener, Suh, Lucas, & Smith, 1999; Miller, Zivnuska, & Kacmar, 2019; Sedikides et al., 2004) and rumination (e.g., Ciesla & Roberts, 2002, 2007; Joireman, 2004, Kuster et al., 2012).

However, the primary goal of the current study was not to simply replicate previous findings regarding self-esteem and personal and relational well-being. Instead, the goal of the present study was to investigate whether changing the social evaluation of LSE would positively

influence LSEs' personal and relational well-being in romantic relationships. Because possessing a culturally devalued trait is associated with poor psychological well-being (Quinn & Chaudoir, 2013), when a devalued trait such as low self-esteem is portrayed as more socially acceptable (Magid, 2017), then presumably well-being should increase. Thus, finding evidence that the link between lower self-esteem and lower well-being could be broken, in this proposed case by changing the social evaluation of self-esteem, could have numerous benefits to the lives of those with lower self-esteem.

To test this prediction, I first pilot tested whether the constructed manipulation would alter attitudes towards self-esteem and then subsequently used that manipulation to assess any impact on well-being. Unfortunately, the pilot study found that after exposure to the SALSE condition scenario, participants did not perceive low self-esteem as any more acceptable than those exposed to the SRLSE and disclosure only condition scenarios. Thus, my manipulation of the social evaluation of self-esteem did not create any changes in these attitudes. However, people clearly saw the SALSE condition as portraying more acceptance than the other two conditions and, perhaps consequently, had a positive impact on mood. Specifically, exposure to the SALSE condition scenario lead to significantly higher positive affect than exposure to the SRLSE condition scenario, as expected. This finding is in line with similar research which found that when using a self-reference task (SRT) that links the self with highly positive stimuli, participants reported significantly higher levels of positivity compared to the control group (Maricuțoiu, Payne, & Iliescu, 2019).

Subsequently and contrary to my main prediction, individuals in the SALSE condition did not report higher levels of well-being compared to those in the SRLSE and disclosure only condition in my main study. Also contrary to my prediction that self-esteem and condition would

interact, exposure to the SALSE condition scenario had no differential impact on HSEs and LSEs personal and relational well-being. Although concealment intentions were influenced by the same scenarios in my previous research (Magid, 2017), these scenarios did not influence personal and relational well-being in the current research.

There are a number of possible reasons why the manipulation did not work as expected, therefore limiting my ability to test the causal influence of positive social evaluation of low self-esteem on well-being. First, it is possible that the manipulation simply does not manipulate the social evaluation of self-esteem, as suggested by the pilot study. Instead, it may be that the manipulation scenario was effective in inducing temporal changes in mood due to the conveyance of acceptance. This, however, may have been too subtle to activate thoughts regarding lay scientific beliefs about the social acceptability of lower self-esteem and therefore, did not lead participants to consider this belief in relation to their own relational and personal well-being. Second, while the condition scenarios influenced intentions to conceal as evidenced in Magid (2017), the context of the scenarios may not have been strong enough to produce changes in the dependent variables of well-being. Alternatively, it is possible that only experiences of actual rejection or acceptance influences well-being.

A third reason why the manipulation did not work as expected may be attributed to the time of year in which I decided to run the study with undergraduate students. Specifically, because the study was run later in the year close to the examination period, students may have been experiencing higher levels of academic stress and preoccupation with receiving credit before the end of the academic year, rather than participating in the study out of sole interest. Fourth, it is possible that the manipulation, which was a scenario regarding friendship, did not engender feelings of rejection or acceptance from a romantic partner. Thus, future studies may

benefit from a more appropriate manipulation, perhaps one that utilizes a romantic relationship-specific situation strong enough to evoke feelings of acceptance and rejection from a romantic partner. Lastly, more men than woman failed the attention check in the current study ( $n = 22$  and  $8$ , respectively). Thus, it is possible that men were less attentive and less likely to read the condition scenarios than women during the survey, which reduced the manipulation's effectiveness on their reports of well-being.

### **Exploring Sample and Gender Differences**

Although not hypothesized, results revealed a sample difference in both personal and relational well-being, such that participants from the online sample reported higher relational and personal well-being than participants from the university sample. One explanation for this difference may be related to age. To elaborate, participants in the online sample ( $M = 34.5$ ,  $SD = 9.77$ ) were significantly older than participants in the university sample ( $M = 19.72$ ,  $SD = 3.03$ ),  $t(211) = -14.81$ ,  $p < .001$ . Prior studies comparing younger and older adults on a number of factors related to well-being have consistently found that older adults report greater happiness (Gross, Carstensen, Pasupathi, Tsai, Skorpen, & Hsu, 1997), life satisfaction (e.g., Hamarat, Thompson, Zabucky, Steele, Matheny, & Aysan, 2001; Orth et al., 2012), meaning in life (Steger, Oishi, & Kashdan, 2009), and relationship quality (King & Scott, 2005) compared to younger adults. Thus, it may be that the significant effect of sample on well-being in the present study was due to a larger proportion of middle-aged adults being in the online sample relative to the university sample.

Results also revealed a gender difference in well-being, such that men reported higher well-being than women in every domain. Prior research has yielded similar findings. A study by Gomez-Baya, Lucia-Casademunt, and Salinas-Perez (2018) found that women reported lower

psychological well-being and more health problems compared to men. In terms of life satisfaction, a majority of study results support the conclusion that men have higher levels of life satisfaction than women (e.g., Pinquart and Sörenson, 2000; Batz et al., 2019). Epstein (1993) postulated that men are less likely to internalize external events and tend to be less sensitive to rejection, failure, and disapproval than women, which may in turn, precipitate the promotion of greater self-esteem and positively influence relational and personal well-being.

Thus far, I have reviewed evidence pertaining to my findings. Overall, my results replicate prior work and suggest that lower self-esteem is strongly associated with decreased positive mood and lower relational and personal well-being than higher self-esteem. Although the manipulation did not prove effective in changing LSEs' social evaluation of self-esteem and their subsequent reports of personal and relational well-being as anticipated, the findings contribute to the well-established literature regarding the link between self-esteem and well-being. Additionally, this work illustrates a somewhat novel and distinct approach to increasing personal and relational well-being among LSEs.

### **Strengths**

The present research has many strengths. First, I examined personal and relational well-being along a number of variables instead of relying on just one index, which allows for a better understanding of the dimensions of personal and relational well-being affected by self-esteem and the SALSE manipulation. Second, the study utilized a control condition. In addition, the study used random assignment and an experimental manipulation, which provided the opportunity to assess the direct relationship between self-esteem and the SALSE scenario's effects on well-being. Third, I used two different large samples, which increased the generalizability of my research across ages, demographics, relationship commitment, and

relationship length, and assessed my research question using different methodologies (i.e., online vs. computer lab). Lastly, the manipulation used was the first of its kind to target the social acceptability of low self-esteem. To my knowledge, this is the first study to directly examine the impact of a first-person narrative regarding the social acceptability of low self-esteem on LSEs' relational and personal well-being.

### **Limitations**

Although there were several strengths to the main study, there are also some important limitations. First, due to time constraints, data was collected from two sources. Although this method could be viewed as a strength, the samples collected from these sources varied in a number of the analyses. Thus, it is possible that the manipulation would have been effective for one sample given an adequate number of participants in either sample to produce an effect. Therefore, future research should consider collecting large enough samples from each of these sources in order to examine each sample separately. Second, while the Rosenberg Self-Esteem Scale (Rosenberg, 1965) is the most widely used measure of self-esteem, perhaps other measures that capture domain specific aspects of self-esteem may have been useful (e.g., State Self-Esteem Scale; Heatherton & Polivy, 1991) in capturing state changes in feelings and attitudes. Lastly and most importantly, I failed to extend past findings which found that the same manipulation (Magid, 2017) decreased concealment intentions among LSEs in romantic relationships. Thus, there are many reasons, as discussed above, that may contribute to the lack of effects in the present study.

### **Implications and Future Directions**

Even though the manipulation did not affect the relationship between self-esteem and well-being entirely as anticipated, results from the present study illustrate that self-esteem

influenced multiple facets of one's life including relationship satisfaction, closeness, optimism for the future, perceived rumination, and satisfaction with life. Further, the idea presented in the study might still hold merit given that the manipulation effectively produced a more positive mood in the pilot study and changes in concealment intentions in previous work and thus warrants for further investigation. For example, all of my previous work investigating the effects of this manipulation utilized North American samples, and therefore, it may be of value to study this in other types of relationships (e.g., friends, family, coworkers) or cross-culturally, as the social evaluation of self-esteem may not be universal across the wider gap of cross-culture analysis (Kitayama et al., 1997). Probing differences in lay beliefs have elsewhere proven vital for understanding cultural differences (Spencer, Rodgers, Williams, & Peng, 2012).

Because the study did not find the predicted interaction between condition and self-esteem, it may be that other mechanisms not included in the present study influence the relationship between self-esteem and well-being. Future research should test for other variables that may impact well-being and include a wider variety of measures of relational and personal well-being in order to gain a more comprehensive understanding of the link between low self-esteem and reduced well-being. LSEs' constant fear of rejection and devaluation due their low self-esteem status has detrimental consequences for both themselves and their relationships (Murray, Holmes, & Collins, 2006). Thus, a better understanding of how this might be broken is essential.

## **Conclusions**

The present research suggests that lower self-esteem is associated with detriments in one's well-being, highlighting the prominent link between self-esteem and well-being. Findings revealed that LSEs reported low levels of relational and personal well-being, while HSEs

remained virtually unaffected by the manipulation. Although I proposed two pathways through which the social attitudes people hold about lower self-esteem may influence LSEs' well-being, changing these social beliefs did not influence LSEs well-being. However, the findings replicate prior work further reinforcing the persistent link between low self-esteem and well-being.

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## Appendix A

## Self-esteem Scale (Rosenberg, 1965)

**How do you feel generally?**

Please indicate how much you agree or disagree with the following statements using the scale below.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>
<b>Disagree Strongly</b>		<b>Disagree</b>		<b>Neutral</b>		<b>Agree</b>		<b>Agree Strongly</b>

1. \_\_\_\_\_ I feel that I am person of worth, at least on an equal basis with others
2. \_\_\_\_\_ I feel that I have a number of good qualities
3. \_\_\_\_\_ all in all, I am inclined to feel that I am a failure
4. \_\_\_\_\_ I am able to do things as well as most other people
5. \_\_\_\_\_ I feel I do not have much to be proud of
6. \_\_\_\_\_ I take a positive attitude towards myself
7. \_\_\_\_\_ On the whole I am satisfied with myself
8. \_\_\_\_\_ I wish I could have more respect for myself
9. \_\_\_\_\_ I certainly feel useless at times
10. \_\_\_\_\_ At times, I think I am no good at all

## Appendix B

## Ten-Item-Personality-Inventory (Gosling et al., 2003)

Below are a number of personality traits that may or may not apply to yourself. Using the following scale, please indicate the extent to which you agree or disagree with that statement. You should rate the extent to which the pair of traits applies to yourself, even if one characteristic applies more strongly than the other.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>
<b>Disagree Strongly</b>		<b>Disagree</b>		<b>Neutral</b>		<b>Agree</b>		<b>Agree Strongly</b>

**I see myself as:**

1. \_\_\_\_\_ Extraverted, enthusiastic
2. \_\_\_\_\_ Critical, quarrelsome
3. \_\_\_\_\_ Dependable, self-disciplined
4. \_\_\_\_\_ Anxious, easily upset
5. \_\_\_\_\_ Open to new experiences, complex
6. \_\_\_\_\_ Reserved, quiet
7. \_\_\_\_\_ Sympathetic, warm
8. \_\_\_\_\_ Disorganized, careless
9. \_\_\_\_\_ Calm, emotionally stable
10. \_\_\_\_\_ Conventional, uncreative

## Appendix C

## Manipulation (Magid, 2017)

## i. SALSE condition

**Instructions:**

Please imagine yourself as the main character in the following scenario. Read the following scenario carefully as you will be asked questions about it afterwards.

Last summer, while on break from university, two of my friends from high school, Jennifer and Alex, and I all got jobs at Winnipeg Beach. In our free time, we lounged in the summer sun on the beach, went for hikes, and binge watched our favorite series on Netflix. By the end of the summer, Jennifer and Alex had become the best friends I had ever had.

In the past I've often kept my self-doubts to myself, but Jennifer and Alex made me feel like there are finally people I can confide in. On the last night before returning to the city, we decided to meet up and go for one last walk on the beach. That night I finally opened up about my insecurities and how I sometimes feel worthless.

Jennifer and Alex were reassuring. After our drive back to the city, we all went for dinner and made plans to get together next weekend. I am so happy I decided to open up to them. I feel like we're closer than ever.

## ii. Rejection Condition

**Instructions:**

Please imagine yourself as the main character in the following scenario. Read the following scenario carefully as you will be asked questions about it afterwards.

Last summer, while on break from university, two of my friends, Jennifer and Alex, and I all got jobs at Winnipeg Beach. In our free time, we lounged in the summer sun on the beach, went for hikes, and binge watched our favorite series on Netflix. By the end of the summer, Jennifer and Alex had become the best friends I had ever had.

In the past I've often kept my self-doubts to myself, but Jennifer and Alex made me feel like there are finally people I can confide in. On the last night before returning to the city, we decided to meet up and go for one last walk on the beach. That night I finally opened up about my insecurities and how I sometimes feel worthless.

Jennifer and Alex said nothing to reassure me. I could tell they were both eager to part ways after our walk and talk on the beach. After our drive back to the city, I haven't heard from either of them. They haven't responded to any of my texts or calls. I feel more alone than ever and regret opening up to them in the first place.

## ii. Disclosure only condition

**Instructions:**

Please imagine yourself as the main character in the following scenario. Read the following scenario carefully as you will be asked questions about it afterwards.

Last summer, while on break from university, two of my friends from high school, Jennifer and Alex, and I all got jobs at Winnipeg Beach. In our free time, we lounged in the summer sun on the beach, went for hikes, and binge watched our favorite series on Netflix. By the end of the summer, Jennifer and Alex had become the best friends I had ever had.

In the past I've often kept my self-doubts to myself, but Jennifer and Alex made me feel like there are finally people I can confide in. On the last night before returning to the city, we decided to meet up and go for one last walk on the beach. That night I finally opened up about my insecurities and how I sometimes feel worthless.

## Appendix D

## Scenario Reactions

Tell us your reactions to the story you just read.

**I found this scenario . . .**

	<i>Not at all</i>								<i>Very</i>
									<i>much</i>
Interesting	1	2	3	4	5	6	7	8	9
Well-written	1	2	3	4	5	6	7	8	9
Realistic	1	2	3	4	5	6	7	8	9

Appendix E

Attention Check

**Are the following statements about the story True or False?**

1) All three characters in the story worked at Winnipeg beach last summer. TRUE OR FALSE

2) All three characters in the story really enjoyed scuba diving. TRUE OR FALSE

3) The main character in the story decides to confide in the other two characters during a walk on the beach. TRUE OR FALSE



## Appendix G

## Perceived Social Evaluation of Self-esteem Scale (Cameron, 2016; unpublished)

Please use the following scale to answer the questions below:

1	2	3	4	5	6	7	8	9
very strongly disagree		moderately disagree		neutral		moderately agree		very strongly agree

**In general...**

1. People prefer individuals who have high self-esteem. \_\_\_\_\_
2. If I had a choice, I'd rather have high self-esteem than low self-esteem. \_\_\_\_\_
3. Most people would prefer to have high self-esteem. \_\_\_\_\_
4. Having low self-esteem is just as desirable as having high self-esteem. \_\_\_\_\_
5. Most people have more fun hanging out with their high self-esteem friends. \_\_\_\_\_

Appendix H

Endorsement of Self-Esteem Lay Theories (Cameron, 2016; unpublished)

If you knew a specific trait about someone, what would that tell you about their self-esteem? We would like you to think about and then indicate how specific traits relate to self-esteem.

*Instructions:* Using the 9-point scale, please rate the characteristics below based on whether you think the trait is more characteristic of high self-esteem or low self-esteem.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>
Only low self-esteem people have this characteristic				Equally likely for low and high self-esteem people to have this characteristic				Only high self-esteem people have this characteristic

<b>Characteristic</b>	<b>Rating</b>
a. Likeable	_____
b. Desirable	_____
c. Physically attractive	_____
d. Intelligent	_____
e. Friendly	_____
f. Competent	_____
g. Understanding	_____

## Appendix I

Positive and Negative Affect Schedule (PANAS; modified from Kercher, 1992)

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>
Very slightly or Not at All		a little		Moderately		quite a bit		Extremely

**Right now, I feel ...**

- |                     |                    |
|---------------------|--------------------|
| 1. ___ distressed   | 8. ___ proud       |
| 2. ___ excited      | 9. ___ alert       |
| 3. ___ upset        | 10. ___ ashamed    |
| 4. ___ strong       | 11. ___ inspired   |
| 5. ___ guilty       | 12. ___ nervous    |
| 6. ___ scared       | 13. ___ determined |
| 7. ___ enthusiastic | 14. ___ afraid     |

## Appendix J

Demographic Questionnaire<sup>2</sup>

1. In which country were you born? Choose: CANADA OTHER (please specify \_\_\_\_\_)  
 If you were not born in Canada, at what age did you move to Canada? \_\_\_\_\_ years old
2. Is English your first language (i.e., the language you speak and read best)? YES NO

**If no:**

What is your first language? \_\_\_\_\_

How long have you spoken English? \_\_\_\_ years \_\_\_\_ months

3. Please indicate how you would best describe your ethnic or cultural background by checking one of the general categories presented below. If more than one category applies, please select the one with which you **most** strongly identify.

\_\_\_\_\_ Arab/West Asian (e.g., Armenian, Egyptian, Iranian, Lebanese, Moroccan)

\_\_\_\_\_ Black (e.g., African, Nigerian, Somali)

\_\_\_\_\_ Hispanic/Latino

\_\_\_\_\_ Chinese

\_\_\_\_\_ Filipino

\_\_\_\_\_ Indigenous (e.g., First Nations, Inuit, Métis)

\_\_\_\_\_ Japanese

\_\_\_\_\_ Korean

\_\_\_\_\_ Latin American (e.g., Hispanic)

\_\_\_\_\_ South Asian (e.g., East Indian, Pakistani, Punjabi, Sri Lankan)

\_\_\_\_\_ South East Asian (e.g., Cambodian, Indonesian, Laotian, Vietnamese)

\_\_\_\_\_ White/European (e.g., English, French, Scottish, Irish)

\_\_\_\_\_ Other (please specify) \_\_\_\_\_

4. What is the highest level of education you have attained? (Please select one)

- Did not graduate from high school
- High school graduate
- Some university or college
- Community college (2-year) degree
- University (4-year) degree
- Postgraduate or professional degree

5. Which of the following career categories best describes your current occupation? Please check all that apply to you.

- Student
- Education
- Building/construction
- Retail/sales
- Science/technical
- Secretarial/clerical

---

<sup>2</sup> Questions 4 and 5 on demographic questionnaire were only presented to the Online sample in the Main Study.

- Marketing
- Transportation
- Government
- Entertainment
- Information technology
- None--I'm currently unemployed
- Other \_\_\_\_\_

## Appendix K

**Online Recruitment Statement**

**Study Name:** Personality, Stories, and Romantic Relationships Survey

**Faculty Investigator:** Dr. Jessica Cameron, Professor, Psychology,  
Jessica\_Cameron@umanitoba.ca; phone: 1 (204) 474-7490

**Student Investigator:** Kirby Magid, Masters Psychology Student; magidk@myumanitoba.ca

**Sponsor:** Social Sciences and Humanities Research Council Insight Grant

**Brief Abstract:** A laboratory computer-based survey assessing people's current feelings, attitudes in romantic relationships, and reactions to certain stories.

**Detailed Description:** This is a laboratory computer-based survey conducted by Kirby Magid, a Masters student at the University of Manitoba, under the supervision of Dr. Jessica Cameron. If you participate in this study, you will be asked to complete a short online survey. In this survey, you will be asked to complete questions about yourself (i.e. your traits, beliefs, and demographic information). You will then be asked to read a story about a person and answer questions about this story. You will also be asked to answer questions about how you feel in general, and in your current romantic relationship. Lastly, you will be asked a few demographic questions (i.e. gender, age, ethnic/cultural background).

There is no significant risk to participating in this study.

**Eligibility Requirements:** You must currently be involved in a romantic relationship that has lasted for a minimum of three months (i.e., you must not be single). You must also be 18 years of age, and fluent in English to participate in this study.

**Exclusion Criteria:**

- Individuals who are not currently involved in a romantic relationship lasting a minimum of three months.
- Individuals under the age of 18 years.
- Individuals who are not fluent in English.

**Duration:** This survey will take 20 to 25 minutes.

**Compensation:** You will receive 1 credit towards your research participation mark for participating.

## Appendix L

**Online Recruitment Statement**

(Online Sample)

**Study Name:** Personality, Stories, and Romantic Relationships Survey**Faculty Investigator:** Dr. Jessica Cameron, Professor, Psychology,  
Jessica\_Cameron@umanitoba.ca; phone: 1 (204) 474-7490**Student Investigator:** Kirby Magid, Masters Psychology Student; magidk@myumanitoba.ca**Sponsor:** Social Sciences and Humanities Research Council Insight Grant**Brief Abstract:** An online study assessing people's attitudes and beliefs about certain traits, such as self-esteem, and reactions to certain stories**Detailed Description:** This is an online study conducted by Kirby Magid, a Masters student at the University of Manitoba, under the supervision of Dr. Jessica Cameron. If you participate in this study, you will be asked to complete a short online survey. In this survey, you will be asked to complete questions about yourself (i.e. your traits, beliefs, and demographic information). You will then be asked to read a story about a person and answer questions about this story. You will also be asked to answer questions about how you feel in general, and in your current romantic relationship. Lastly, you will be asked a few demographic questions (i.e. gender, age, ethnic/cultural background).

There is no significant risk to participating in this study.

**Eligibility Requirements:** You must currently be involved in a romantic relationship that has lasted for a minimum of three months (i.e., you must not be single). You must reside in North America, be between the ages of 18 and 26 years old, and be fluent in English to participate in this study.**Exclusion Criteria:**

- Individuals who are not currently involved in a romantic relationship lasting a minimum of three months.
- Individuals who are not fluent in English.
- Individuals who are under the age of 18 and over the age of 26 years.
- Individuals who reside outside of North America.

**Duration:** This survey will take 10 to 15 minutes.**Compensation:** You will receive \$1.00 in appreciation for your time Demographic

## Appendix M

**Information and Consent Form**

(University Sample)

**Study Name:** Personality, Stories, and Romantic Relationships Survey**Faculty Investigator:** Dr. Jessica Cameron, Professor, Psychology,  
Jessica\_Cameron@umanitoba.ca**Student Investigator:** Kirby Magid, Masters Psychology Student; magidk@myumanitoba.ca**Sponsor:** Social Sciences and Humanities Research Council Insight Grant

This consent form, which we strongly suggest that you **print** for your records and reference, is only part of the process of informed consent. It should give you the basic idea of what the research is about and what your participation will involve. If you would like more details about something mentioned here, or more information not included here, you should feel free to ask. Please take the time to read this carefully and to understand any accompanying information.

**What am I doing?**

This research study is being conducted to study your current feelings, attitudes in romantic relationships, and reactions to stories. You are being asked to participate in this study. You will receive 1 credit towards your research participation mark for your participation.

**What does participating involve?**

If you choose to take part in this study, participating will require **approximately 20 to 25 minutes of uninterrupted time**. Participating involves completing a short survey about yourself (i.e. your demographic information and beliefs). You will then be asked to read a story about a person and answer questions about this story. You will also be asked to answer questions about you feel in the current moment and in your current romantic relationship.

**What are the benefits?**

By participating, you are making a valuable contribution to research on attitudes and well-being. You may experience and learn more about how psychological research is conducted. You may also enjoy reflecting on your beliefs, attitudes, and reactions.

**Is there any potential for harm?**

There is no harm anticipated from participating in this study. However, resources are provided in the feedback form should you wish to access them.

**How will your information be protected?**

No identifying information will be collected for the study's purposes. Your responses on the questionnaire remain completely anonymous. All of the data collected will be analyzed by Dr. Cameron, Ms. Magid, and trained research assistants. The anonymous data you provide will be retained indefinitely in a secure electronic format.

**What if you want to stop participating?**

If you start the study and for any reason want to stop, you are free to do so at any point without any negative consequences. You may also refuse to answer any questions that you do not wish to answer. If you do choose to withdraw from this study, we will destroy any data that you have provided, and it will not be included in the analysis. In addition, you will not forfeit a research credit. You may withdraw from the current study in two ways: 1) You may exit your browser at any point throughout the study, or 2) At the end of the survey, you can type “Do not use my data” in the section that asks if you have anything else to add. Once you have done this, to receive credit please proceed to the exit screen by pressing the “next” button at the bottom of feedback form page.

**When will you receive the results?**

You will not receive individual feedback on your survey. If you would like further information about the results of the study, you may go to the following website (<http://home.cc.umanitoba.ca/~cameron2/studyresults>) after March 2019 for a more comprehensive discussion of the aggregated results from this study.

**Your selection of the box below indicates that you have understood to your satisfaction the information regarding participation in the research project and agree to participate as a subject. In no way does this waive your legal rights nor release the researchers, sponsors, or involved institutions from their legal and professional responsibilities. You are free to withdraw from the study at any time, and /or refrain from answering any questions you prefer to omit, without prejudice or consequence. Your continued participation should be as informed as your initial consent, so you should feel free to ask for clarification or new information throughout your participation.**

**The University of Manitoba may look at your research records to see that the research is being done in a safe and proper way.**

**This research has been approved by the Psychology/Sociology Research Ethics Board. If you have any concerns or complaints about this project, you may contact Dr. Jessica Cameron or the Human Ethics Coordinator at (204)474-7122 or [humanethics@umanitoba.ca](mailto:humanethics@umanitoba.ca). You may print a copy of this consent form for your records and reference.**

- I agree and would like to start the survey
- I disagree and do not wish to participate

## Appendix N

**Information and Consent Form**

(Online sample)

**Study Name:** Personality, Stories, and Romantic Relationships Survey**Faculty Investigator:** Dr. Jessica Cameron, Professor, Psychology,

Jessica\_Cameron@umanitoba.ca

**Student Investigator:** Kirby Magid, Masters Psychology Student; magidk@myumanitoba.ca**Sponsor:** Social Sciences and Humanities Research Council Insight Grant

This consent form, which we strongly suggest that you **print** for your records and reference, is only part of the process of informed consent. It should give you the basic idea of what the research is about and what your participation will involve. If you would like more details about something mentioned here, or more information not included here, you should feel free to ask. Please take the time to read this carefully and to understand any accompanying information.

**What am I doing?**

This research study is being conducted to study your current feelings, attitudes in romantic relationships, and reactions to stories. You are being asked to participate in this study. You will receive \$1.00 for your participation. In order to receive payment, you must proceed to the end of the survey to obtain the unique confirmation code for this survey, and submit it.

**What does participating involve?**

If you choose to take part in this study, participating will require **approximately 10 to 15 minutes of uninterrupted time**. Participating involves completing a short survey about yourself (i.e. your demographic information and beliefs). You will then be asked to read a story about a person and answer questions about this story. You will also be asked to answer questions about you feel in the current moment and in your current romantic relationship.

**What are the benefits?**

By participating, you are making a valuable contribution to research on attitudes and well-being. You may experience and learn more about how psychological research is conducted. You may also enjoy reflecting on your beliefs, attitudes, and reactions.

**Is there any potential for harm?**

There is no harm anticipated from participating in this study. However, resources are provided in the feedback form should you wish to access them.

**How will your information be protected?**

No identifying information will be collected for the study's purposes. Your responses on the questionnaire remain completely anonymous. All of the data collected will be analyzed by Dr. Cameron, Ms. Magid, and trained research assistants. The anonymous data you provide will be retained indefinitely in a secure electronic format.

**What if you want to stop participating?**

If you start the study and for any reason want to stop, you are free to do so at any point without any negative consequences or loss of payment. You may also refuse to answer any questions that you do not wish to answer. If you do choose to withdraw from this study, we will destroy any data that you have provided, and it will not be included in the analysis. You may withdraw from the current study in two ways: 1) You may exit your browser at any point throughout the study. However, this method will not allow you to collect compensation for your time, or 2) You can **skip** to the end of the survey, and indicate that you don't want us to use your data (if you are withdrawing from participation) in the section that asks if you have anything else to add. Once you have done this, to receive remuneration please proceed to the exit screen to obtain your confirmation code for this survey and submit it.

**When will you receive the results?**

You will not receive individual feedback on your survey. If you would like further information about the results of the study, you may go to the following website (<http://home.cc.umanitoba.ca/~cameron2/studyresults>) after May 2019 for a more comprehensive discussion of the aggregated results from this study.

**Your selection of the box below indicates that you have understood to your satisfaction the information regarding participation in the research project and agree to participate as a subject. In no way does this waive your legal rights nor release the researchers, sponsors, or involved institutions from their legal and professional responsibilities. You are free to withdraw from the study at any time, and /or refrain from answering any questions you prefer to omit, without prejudice or consequence. Your continued participation should be as informed as your initial consent, so you should feel free to ask for clarification or new information throughout your participation.**

**The University of Manitoba may look at your research records to see that the research is being done in a safe and proper way.**

**This research has been approved by the Psychology/Sociology Research Ethics Board. If you have any concerns or complaints about this project, you may contact Dr. Jessica Cameron (above contact information) or the Human Ethics Coordinator at 1(204)474-7122 or [humanethics@umanitoba.ca](mailto:humanethics@umanitoba.ca). You may print a copy of this consent form for your records and reference.**

- I agree and would like to start the survey
- I disagree and do not wish to participate

## Appendix O

**Feedback Form**

**Study Name:** Personality, Stories, and Romantic Relationships Survey

**Faculty Investigator:** Dr. Jessica Cameron, Professor, Psychology;  
[Jessica.Cameron@umanitoba.ca](mailto:Jessica.Cameron@umanitoba.ca)

**Student Investigator:** Kirby Magid, Masters Psychology Student; [magidk@myumanitoba.ca](mailto:magidk@myumanitoba.ca)

**Sponsor:** Social Sciences and Humanities Research Council Insight Grant

Thank you for participating in the *Personality, Stories, and Romantic Relationships Survey* study! The following information explains the purpose of the study in further detail. The study you just participated in was designed to investigate whether exposure to a certain story changes how people feel in the present moment and in their current romantic relationship. More specifically, we want to know whether exposure to a message that portrays low self-esteem as socially acceptable will lead people with lower self-esteem to report higher personal well-being (e.g., life satisfaction), as well as more positive feelings towards their romantic relationship (e.g., relationship satisfaction). To address this question, participants read one of three scenarios about a main character. All participants read that the main character revealed insecurities to two friends. Participants were then randomly assigned to learn that the main character's disclosure was met with either acceptance, rejection, or they received no further information about the disclosure. By conducting an experiment, we can determine whether exposure to such stories can cause differential outcomes in well-being. In other words, if we find support for our prediction, it suggests that modifying lower self-esteem individuals' beliefs about the social acceptability of low self-esteem leads to more positive emotions and feelings in the current moment and in their romantic relationships.

This is the first step in a line of research aimed at studying the consequences of people's attitudes about self-esteem. Ultimately, we hope to learn whether changing the way people think about low self-esteem can allow people with lower self-esteem to feel better about themselves in the present moment and in their current romantic relationships. This study will contribute to the accumulating research directed at about modifying people's beliefs about low self-esteem and its relation to well-being.

Thank you again for participating in our study! You have contributed to the science of self-esteem!

Please keep in mind that by January 2019, an aggregated summary of this study will be available to you by going to Dr. Jessica Cameron's webpage at: <http://home.cc.umanitoba.ca/~cameron2/>

If you have any comments or questions about this study, you may contact Dr. Jessica Cameron at [Jessica.Cameron@umanitoba.ca](mailto:Jessica.Cameron@umanitoba.ca).

**If you would like further information on coping with self-esteem difficulties or building self-esteem, here are some resources that might help:**

Counselling:

University of Manitoba Student Counselling Centre  
474 University Centre  
204-474-8592

Online resources. . .

Self-esteem Game <http://selfesteemgames.mcgill.ca>  
Improving Self-esteem [http://www.cci.health.wa.gov.au/docs/SE\\_Module%209\\_July%2005.pdf](http://www.cci.health.wa.gov.au/docs/SE_Module%209_July%2005.pdf)  
Building Self-Confidence <http://selfdeterminedlife.com/build-self-confidence/>  
Self-confidence tips based on research <https://my.happify.com/hd/7-secrets-of-unwavering-self-confidence/>  
Perspective on the self <https://my.happify.com/hd/how-to-appreciate-what-you-have/>

Alternative Perspectives on Low Self-esteem:

[http://www.salon.com/2014/05/25/low\\_self\\_esteem\\_is\\_good\\_for\\_you\\_weve\\_been\\_too\\_successful\\_at\\_making\\_people\\_feel\\_good/](http://www.salon.com/2014/05/25/low_self_esteem_is_good_for_you_weve_been_too_successful_at_making_people_feel_good/)

\*These resources are suggestions, the researchers cannot guarantee their usefulness, nor are the researchers involved in these resources in any way.

**If you would like further information about research related to the present study, please refer to:**

Anthony, D. B., Holmes, J. G., & Wood, J. V. (2007). Social acceptance and self-esteem: Tuning the sociometer to interpersonal value. *Journal of Personality and Social Psychology*, 92, 1024-1039

Cameron, J. J., Stinson, D. A., Hoplock, L., Hole, C., & Schellenberg, J. (2016). The robust self-esteem proxy: Impressions of self-esteem inform judgments of personality and social value. *Self and Identity*, 15, 561-578.

Leary, M. R., Tambor, E. S., Terdal, S. K., & Downs, D. L. (1995). Self-esteem as an interpersonal monitor: The sociometer hypothesis. *Journal of Personality and Social Psychology*, 68, 518-530. doi: 10.1037/0022-3514.68.3.518

***Thank you for your participation!***

## Appendix P

## Relationship Demographics

You are being asked to answer the following questions based on your relationship with your **current romantic partner**.

Please type the initials of the person you are focusing on here \_\_\_\_\_

You are now asked to think of only this person when answering the questions below.

My **current romantic partner** is \_\_\_\_\_ years old and a \_\_\_\_\_ (gender options: *man, woman, identifies gender as . . . fill in the blank*)

What is the current status of your relationship?

Married \_\_\_\_\_

Casual dating \_\_\_\_\_

Engaged \_\_\_\_\_

Living together \_\_\_\_\_

Exclusive dating \_\_\_\_\_

Long distance \_\_\_\_\_

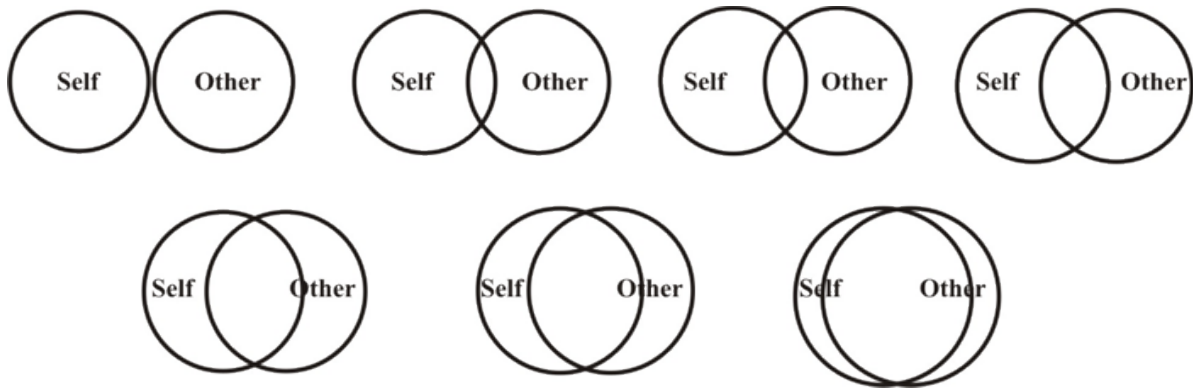
Dating multiple people \_\_\_\_\_

How long have you been close to your **current romantic partner**? \_\_\_\_\_ years \_\_\_\_\_ months

Appendix Q

The Inclusion of Other in the Self scale (Aron, Aron, & Smollan, 1992)

Instructions: Please circle the picture that best describes your current relationship with your romantic partner.



## Appendix R

Relationship Satisfaction Scale (Murray, Holmes, & Griffin, 1996a, 1996b)

Please rate the extent to which you agree with each of the following statement using the scale below.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>
Not at all								Extremely
true								True

**Right now...**

1. \_\_\_\_\_ I am extremely happy with my current romantic relationship.
2. \_\_\_\_\_ I have a very strong relationship with my partner.
3. \_\_\_\_\_ I do not feel that my current relationship is successful.
4. \_\_\_\_\_ My relationship with my partner is very rewarding (i.e., gratifying, fulfilling)

## Appendix S

## Optimism for the Relationship's Future (MacDonald &amp; Ross, 1999)

After each question, we would like you to tell us how confident you are that your relationship will last for the time period specified in the question using percentage ratings.

If you were absolutely certain that your relationship would still be together in the time period specified in the question, you would respond with 100%.

If you believe that there is an equal probability that the relationship will be together or have ended in the time period specified in the question, you would respond with 50%.

If you were absolutely certain that the relationship would end by the time period specified in the question, you would respond with 0%.

Please respond to each question using the following percentages:

**0%      10%      20%      30%      40%      50%      60%      70%      80%      90%      100%**

1. How certain are **you** that the two of you will still be together 2 months from now? \_\_\_\_\_%

2. How certain are **you** that the two of you will still be together 1 year from now? \_\_\_\_\_%

3. How certain are **you** that the two of you will remain together and get married? \_\_\_\_\_%

4. How certain are **you** that the two of you will remain together for a lifetime? \_\_\_\_\_%

## Appendix T

## Brief State Rumination Inventory (Modified from Marchetti et al., 2018)

Please respond to the following items by referring to the way you feel or think right now. For each item, please indicate your level of agreement or disagreement using the scale below.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>
<b>Disagree Strongly</b>		<b>Disagree</b>		<b>Neutral</b>		<b>Agree</b>		<b>Agree Strongly</b>

1. \_\_\_\_\_ Right now, I dwell on negative aspects of myself that I wish I'd stop thinking about.
2. \_\_\_\_\_ Right now, I wonder why I always feel the way I do.
3. \_\_\_\_\_ Right now, I am thinking: "why do I have problems other people don't have?"
4. \_\_\_\_\_ Right now, I am rehashing in my mind recent things I've said or done.
5. \_\_\_\_\_ Right now, I am thinking: "why can't I handle things better?"
6. \_\_\_\_\_ Right now, it is hard for me to shut off negative thoughts about myself.

## Appendix U

## Satisfaction with Life Scale (Diener et al., 1985)

Below are five statements that you may agree or disagree with. Using the 1 - 7 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.

1	2	3	4	5	6	7
Strongly disagree	disagree	slightly disagree	neither agree nor disagree	slightly agree	agree	Strongly Agree

**Right now...**

1. \_\_\_\_ My life is ideal for me.
2. \_\_\_\_ The conditions of my life are excellent.
3. \_\_\_\_ I am satisfied with my life.
4. \_\_\_\_ I have the important things I want in life.
5. \_\_\_\_ I would change nothing about my life.

## Appendix V

## Demographic and Verification Questions for Online Sample

## (Main Study)

In which country were you born? Choose: CANADA OTHER (please specify \_\_\_\_\_)

If you were not born in Canada, at what age did you move to Canada? \_\_\_\_\_ years old

Is English your first language (i.e., the language you speak and read best)? YES NO

**If no:**

What is your first language? \_\_\_\_\_

How long have you spoken English? \_\_\_\_\_ years \_\_\_\_\_ months

Please indicate how you would best describe your ethnic or cultural background by checking one of the general categories presented below. If more than one category applies, please select the one with which you **most** strongly identify.

\_\_\_\_\_ Arab/West Asian (e.g., Armenian, Egyptian, Iranian, Lebanese, Moroccan)

\_\_\_\_\_ Black (e.g., African, Nigerian, Somali)

\_\_\_\_\_ Hispanic/Latino

\_\_\_\_\_ Chinese

\_\_\_\_\_ Filipino

\_\_\_\_\_ Indigenous/Native American (e.g., First Nations, Inuit, Métis)

\_\_\_\_\_ Japanese

\_\_\_\_\_ Korean

\_\_\_\_\_ Latin American (e.g., Hispanic)

\_\_\_\_\_ South Asian (e.g., East Indian, Pakistani, Punjabi, Sri Lankan)

\_\_\_\_\_ South East Asian (e.g., Cambodian, Indonesian, Laotian, Vietnamese)

\_\_\_\_\_ White/European (e.g., English, French, Scottish, Irish)

\_\_\_\_\_ If a group is not listed above that best represents your ethnic identity, please specify here: \_\_\_\_\_

\_\_\_\_\_ If you equally identify with multiple groups, please specify here: \_\_\_\_\_

Appendix W

Integrity Check

1. I took breaks from the survey to do other things (e.g., check my email, answer the phone). **yes/no.**
  - a. If yes, how long was the break (in minutes)? \_\_\_\_\_
2. Is there anything else you would like to add about this survey?