

Designing and Testing a Risk Regulation Intervention to Increase Relationship

Initiation among Individuals with Lower Self-esteem

by
Christine Hole

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Department of Psychology
University of Manitoba
Winnipeg

Abstract

Social risk elicits an internal struggle between wanting to form significant relationships (i.e., connectedness goals) and avoiding rejection (i.e., self-protection goals). The current research tested an intervention designed to reduce perceptions of risk for low self-esteem individuals (LSEs). However, the intervention did not function as anticipated and regardless of self-esteem level, participants reported lower perceived acceptance and lower state self-esteem in the intervention condition compared to the control. In a post-session two weeks following the manipulation, high self-esteem individuals (HSEs) in the intervention appear to not only recover, but actually reported significantly more perceived regard and global self-esteem than HSEs in the control. A second study investigated the impact of the intervention in light of these surprising findings. Results suggest that viewing the intervention video in a socially risky situation caused both HSEs and LSEs to experience social threat. In contrast, the control video actually served to reduce social risk.

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Designing and Testing a Risk Regulation Intervention to Increase Relationship
Initiation among Individuals with Lower Self-Esteem

Humans have a fundamental need to form and sustain meaningful social bonds with others (Baumeister & Leary, 1995; Bowlby, 1969; Maslow, 1968). In fact, Baumeister and Gitter (2008) describe belonging to a group as one of the most important positive outcomes that motivate human behaviour. Not only has the formation of social bonds helped our prehistoric ancestors fend off attacks from wild beasts (Leary, Tambour, Teral, & Downs, 1995) but the usefulness of relationships has evolved to become an important key to well-being and happiness (Diener & Seligman, 2002). Moreover, social connections are a major predictor of health outcomes (Uchino, Cacioppo, & Kiecolt-Glaser, 1996; Cacioppo, Hawkely & Bertson, 2003) with poor social bonds being associated with negative health outcomes (e.g. Stinson et. al, 2008). With all the benefits of social bonds, it is not surprising that humans are strongly motivated to seek new relationships (Baumeister & Leary, 1995; Reis, Collins, & Berscheid, 2000). However, there is an equally strong motivation to avoid the pain that stems from the possibility of being rejected (Leary, 2004; MacDonald & Leary, 2005).

How individuals choose between the desire to seek out new relationships and the need to avoid the pain of rejection is strongly influenced by their general sense of

self-worth, or self-esteem (e.g., Anthony, Holmes & Wood, 2007; Leary, 2004; Murray, Derrick, Leder, & Holmes, 2008; Murray, Holmes, & Collins, 2006). Lower self-esteem individuals' (LSEs) tendency to focus on avoiding rejection leads LSEs to fewer successes in forming new relationships (Cameron, Stinson, Gaetz, & Balchen, 2010). This is not the case for individuals with higher self-esteem (HSEs) who tend to be motivated by the potential of a new relationship and bypass their concerns with self-protection in favor of connection goals, leading to greater success in forming new relationships. Given the links between health and relationships, it is not surprising that HSEs have better health outcomes than LSEs (Stinson et al., 2008).

How can we help LSEs form social bonds and reap the benefits that relationships bring? The purpose of the present study was to create an intervention aimed at reducing the self-protective motives of LSEs and increasing their perceptions of acceptance, pro-social behaviour, and thus enhance the likelihood that they will form social bonds. Furthermore, I tested the effectiveness of this intervention by examining how exposure to the intervention influences approach motivations, perceptions of acceptance, and pro-social behaviour.

Self-Esteem and Signature Social Motivations

Forming meaningful social bonds has been linked to psychological and physical health benefits (Uchino et al., 1996; Cacioppo et al., 2003). Moreover, when

people fail to sustain minimal social ties they tend to have a mortality risk that is comparable to heavy smoking (House, Landis, & Umberson, 1988). Given the vital importance of maintaining connections with others, an individual needs to be able to monitor their social standing to prevent rejection (Leary et al., 1995). Leary and his colleagues proposed a system, known as a sociometer, in which *state self-esteem* acts as a gauge of a person's perceived amount of inclusion or exclusion. For example, if an individual was to be rejected by a potential romantic partner, this failure would cause a temporary drop in his/her state self-esteem. She/he would feel hurt, rejected, and inferior and these feelings would alert them to the danger of social exclusion and motivate either reparation or seeking bonds elsewhere. On the flip side of this, positive events, such as getting accepted by a new friend, can temporarily boost state self-esteem.

Over time, the self-reflective feelings associated with the reactions of others in combination with other events and predispositions form a chronic level of self-esteem (Leary et al., 1995). Those who feel as though they have often been genially included develop high *global self-esteem* (i.e. HSEs). Purportedly those who feel excluded develop low global self-esteem (i.e. LSEs). These chronic levels of self-esteem subsequently influence later experiences of rejection and acceptance. High global self-esteem initiates a cycle of well-being that begins with perceiving

acceptance from others which leads to exhibiting pro-social behaviour which enviably directs the individual to develop meaningful social bonds. These social bonds increase feelings of inclusion thus quelling the drive to increase self-esteem (Leary et al., 1995). This is not the case with LSEs. Once low global self-esteem has been developed, a vicious cycle perpetuates: LSEs believe others will reject them which further decreases their self-esteem causing them to self-protect by pushing away the opportunity of obtaining much needed social bonds (Baumeister, Tice & Hutton, 1989; Murray et al., 2006; Sommer, 2001). This leaves LSEs trapped in a depleted state of self-esteem with their sociometer gauge on empty, striving for relationships while simultaneously making those social connections less likely (Leary et al., 1995).

The irony of this situation is that in order to improve the self-esteem of LSEs, they need social bonds. Yet their perceptions and reactions in social contexts make achieving these social bonds difficult. LSEs are hypersensitive to rejection cues (Heimpel, Elliot, & Wood, 2006; Murray et al., 2006) and when in a risky situation they are very cautious and tend to self-protect rather than develop much needed social bonds (Baumeister et al., 1989; Murray et al., 2006; Sommer, 2001).

This cycle is perhaps most pronounced in the first essential stage of relationships: Relationship initiation. When a relationship is in its preliminary stages

an individual will gauge whether their partner is exhibiting cues of acceptance or rejection. However, social motivations can bias how individuals process this type of social information (Strachman & Gable, 2006). How an individual perceives these cues is dependent on their particular social strategies for dealing with interpersonal risk (Cameron et al., 2010). Cameron and her colleagues found that when social risk is present, during novel interactions between members of the opposite sex, HSEs perceived greater acceptance than LSEs, but the removal of social risk eliminates this difference between HSEs and LSEs.

Yet social risk is inherent to relationship initiation: Nearly everyone perceives initiating new relationships as risky. This risk is present when there is the possibility of making new desirable social bonds with others (Tice & Masicampo, 2008) while there is also the potential for painful rejection (Leary & MacDonald, 2003). All people, regardless of self-esteem, experience an internal struggle between the simultaneous goal of attempting to build the relationship (approach motivation), and the goal of self-protecting against the pain that may occur if the individual is rejected (avoidance motivation; Cameron et al., 2010). Where LSEs and HSEs differ is the way they attempt to resolve this goal conflict which is known as their *signature social motivation* (Murray et al., 2006; 2008; Cameron et al., 2010).

According to the risk regulation model (Murray et al., 2006), HSEs and LSEs

favor different motivations in response to perceiving social risk. Although both experience an internal conflict, HSEs focus on approach motivation whereas LSEs focus on avoidance motivations, leading to divergent reactions to social risk. HSEs' optimistic approach likely stems from their expectations that they will be liked and accepted, and therefore, feel more comfortable risking what they see as an unlikely outcome of rejection (Tice, & Masicampo, 2008). Consequently, HSEs view the risk of rejection as unlikely, exhibit higher approach motivations, and perceive more acceptance from others (Cameron et al., 2010). Interestingly, HSEs strong approach goals leads them to not only expect positive experiences but this expectation of success actually perpetuates successful events to occur (Gable, Reis, & Elliot, 2000). HSEs behave in a warm and likable manner when in risky social situations (Cameron et al., 2010) and thus would likely create the acceptance they perceive (Stinson et al., 2008; Cameron et al., 2010).

LSEs conversely are not as optimistic, they do not think of themselves as valuable interaction partners, (Leary et. al, 1995) and not as affable as HSEs (Leary & MacDonald, 2003). Thus, LSEs generally do not believe that novel others will accept them (Anthony et al., 2007). It is therefore not surprising that LSEs are not comfortable taking what they see as a huge leap of faith in initiating new relationships. LSEs not only expect others to reject them, they actually perceive fewer indicators of

acceptance from novel others than HSEs even when actual acceptance is held constant (Cameron et al., 2010). LSEs end up seeing the very rejection they fear even when such rejection is not present. It is no wonder that LSEs opt to self-protect and limit the potential for the painful experience of rejection (e.g., Anthony et al., 2007; Baumeister et al., 1989; Heimpel et al., 2006; Murray et al., 2006). Unfortunately LSEs' self-protective behaviour leads them to come across as cold and unlikeable (Cameron et al., 2010) which would greatly decrease LSEs' ability to form social bonds. This leaves LSEs with a rather unfortunate conundrum between achieving the social bonds they desperately need and protecting themselves from the harmful consequences of rejection. What can be done to help LSEs form social bonds?

Creating a Risk Regulation Intervention

To improve their chances of achieving social bonds LSEs need to experience reductions in their heightened self-protective motives. Such reductions should improve perceptions of acceptance and increase pro-social behaviour which should in turn increase actual acceptance from novel interaction partners. Yet, an intervention that directly targets and artificially eliminates self-protective motives may be inappropriate. Even though it may inhibit bonds when overused, self-protection is an important tool and should not be eliminated. When activated, self-protection motives can be utilized to correctly regulate how an individual can appropriately respond to

hazardous and actually rejecting situations. Thus, it could be potentially damaging for LSEs, with their fragile self-esteem, to approach new situations with unabashed enthusiasm with no regard for self-protection.

If eliminating self-protection is inappropriate, perhaps increasing approach motivations directly might be fruitful. Murray et al. (2008) primed approach motivations directly in participants who were in committed relationships. When primed with approach/connectedness goals, HSEs reported greater connectedness motives. However, LSEs who were primed with approach/connectedness goals displayed greater self-protection motives and not the intended primed approach motivations. Murray and her colleagues argue that direct primes of approach motivation may ironically elicit self-protection motives in LSEs. Consequently, an intervention that directly tried to prime approach motivations would be doomed to fail.

Thus the present research focused on changing LSEs' signature social motivation through reducing their perceptions of risk. An intervention focused on reducing social risk seems promising. If risk is low, the approach/avoidance conflict should also be low, thus the signature social motivations should not be activated.

Research shows that when the risk of rejection is almost nonexistent that LSEs feel secure enough to chance maintaining social bonds (Murray, Holmes, & Griffin, 2000; Murray, Holmes, Griffin, Bellavia, & Rose, 2001). Previous research has

demonstrated that reducing social risk in a particular interaction with a confederate led LSEs to report higher perceptions of acceptance and to engage in more pro-social behaviours (Cameron et al., 2010). Therefore when social risk is reduced it should lead LSEs to perceive more acceptance and behave in a more likeable and warm manner. In other words, LSEs should behave more like HSEs. Ultimately this should lead to the creation of social bonds which will, overtime, increase LSEs overall global self-esteem.

The current research used an intervention procedure modeled after Walton and Cohen's (2007) intervention for stigmatized groups. One of their goals was to help these groups normalize their feelings of doubt when it came to social belonging. They wanted to help this group of students realize that their feelings of uncertainty in belonging were normal and something that was experienced by most students regardless of race. Indeed, the intervention was successful. When students realized this commonality, they experienced less social isolation and experienced enhanced academic performance up to four years later.

In the present study, the proposed risk regulation intervention attempted to reduce perceptions of risk by normalizing social anxiety, a common problem for LSEs. To reduce risk, the present study expands and attempts to improve upon a manipulation used in Cameron et al. (2010). In an experiment by Cameron and her

colleagues, social risk was reduced by telling participants that their interaction partner suffered from social anxiety. Normalizing social anxiety should reduce perceptions of risk in three ways. First, normalizing the social anxiety LSEs feel may well decrease how much they focus attention on themselves. This reduction in self-focus can diminish their attentiveness to the potential for rejection from others. Second, believing others suffer from social anxiety may actually cause participants to feel less judged by others, leading them to downplay the importance of their perceived faults. Third, thinking that others have readily apparent faults may bolster participant's self-confidence and provide them with a readily accessible attribution for an interaction partner's behaviour (e.g. "she's not saying much because she is shy").

Study Overview and Hypotheses

The present study was designed to test the effectiveness of a risk regulation intervention. The intervention was intended to help LSEs to change their signature social motivation. I used an experimental design to test my predictions. Participants were randomly assigned to either receive the intervention or be in the control condition. Participants first completed a preliminary survey that contained a measure of global state self-esteem amongst other scales. Participants in both conditions watched a 5-minute video, the content of which served as the manipulation. After watching the video the participants had a video interaction with an ostensible

attractive, single, opposite sexed participant. The participant then reported perceptions of acceptance, approach motivations, state self-esteem and approach behaviour. Two weeks after the study a post-session questionnaire was administered via e-mail. This questionnaire included measures of life satisfaction, perceived regard and responsiveness, relationship initiation and relationship satisfaction.

For all dependent measures, I expected HSEs to be unaffected by the intervention. Thus, HSEs in the control condition should react similarly to HSEs in the intervention condition. However, I predicted that LSEs will benefit from the intervention. Thus, in contrast to LSEs in the control condition and HSEs in the intervention condition, LSEs in the intervention condition should have reported greater approach motivation (H1a), lower avoidance motivation (H1b), perceived greater acceptance in general impressions and in detection of acceptance behaviour (H2), and greater self-reported and coder-reported of approach behaviour (H3 and H4, respectively). If LSEs in the intervention condition experience enhanced perception of acceptance, their state self-esteem should have also increased (H5).

The benefits of the intervention may have long-term consequences. Thus, two weeks after the experiment LSEs who were assigned to the intervention condition were expected to score higher on the perceived regard and responsiveness scales as compared to LSEs who were assigned to the control condition (H6). It was expected

that LSEs who were assigned to the intervention condition would have reported attempting to initiate and acquiring more new relationships than LSEs who were assigned to the control condition (H7). Two weeks after the intervention LSEs who were assigned to the intervention condition were expected to have an increase in life satisfaction as compared to LSEs in the control condition and HSEs in either condition whose life satisfaction scores are not expected to change (H8). Lastly, overall relationship satisfaction for LSEs assigned to the intervention condition should have been greater as compared to LSEs in the control condition (H9).

Given the results that will follow, a second study was also conducted to fully explore the intervention and control videos. In this study, participants were randomly assigned to watch one of the videos and then completed a survey of dependent measures with the hopes of clarifying the impact of both the interaction video and the control video. In an attempt to further clarify the importance of the presence of social risk, participants in the second study viewed the videos in the absence of the socially risky context of meeting an opposite sex person for the first time.

Study 1

LSEs in the intervention condition should benefit from the intervention reporting greater approach motivation, perceived acceptance, and lower avoidance motivation. If LSEs in the intervention condition experience enhanced perception of

acceptance, their state self-esteem should have also increased.

Method

Participants. Seventy-three undergraduate students (all male) enrolled in introductory psychology classes at the University of Manitoba participated in exchange for partial course credit. A total of 13 participants were removed from further analysis (leaving a final sample of 60 participants) for the following reasons: five participants indicated that they suspected that their assigned partner was a videotaped confederate; one participant experienced technical difficulties during the study; four participants had missing data for over 30% of their responses; two participants data revealed an excessive repeated pattern in their responses (i.e. 1,1,1,1,1) suggesting a lack of conscientiousness, on the part of the participant, in answering questions; one participant's global self-esteem was considered an extreme outlier (over three standard deviations below the mean).

The remaining participants ranged from 17 to 24 years of age ($M = 19.03$ $SD = 1.53$) and all stated that English was their primary language. All participants reported that they were heterosexual and none reported being in a committed romantic relationship.

Procedure. In an attempt to hide the true meaning of the experiment, participants were told a cover story upon arriving at the lab. The experimenter

explained to participants that she was interested in studying compatibility between strangers in constrained communication environments. Participants were told that they would have a video exchange with an opposite sex interaction partner, who was single and in a room down the hall. At this point the participants were told that, if their interaction partner agreed, there would be an opportunity to meet face-to-face in the second part of the experiment. This message was designed to enhance social risk, making the situation similar to meeting someone new in a real world interaction. To begin the study, participants completed a preliminary survey containing the self-esteem assessment among other scales.

Participants were randomly assigned to either the *intervention condition* or the *control condition*. Participants in both conditions watched a 5-minute video, the content of which served as the manipulation. To provide participants with a rationale as to why they were watching the video, the experimenter informed them that it was a quick 5-minute video to watch while she set up the video equipment for their next task.

In the intervention condition, participants viewed a video which depicted peers of multiple ethnic groups discussing their own personal experiences with social anxiety in new social situations. The underlying message being that everyone experiences social anxiety (see Appendix A for complete script). Participants in the

control condition watched five minutes of video depicting information about the evolution of birds from dinosaurs.

After watching the video, participants were told that they would start their video exchange with their interaction partner and that the first step in this exchange was to make an introductory video for their interaction partner. Participants were then provided with a list of seven topics to discuss in their introductory video. All of these topics had been selected from a closeness generation procedure (Aron, Melinat, Aron, Vallone & Bator, 1997; e.g., “What is your favourite holiday?”; “What is your dream job?”). Participants were informed that as they made the video their ostensible partner was viewing their video via live feed.

Participants were led to believe that after their interaction partner watched their introductory video, their interaction partner would then make a response video by answering the same seven questions that the participants had originally answered when making the introductory video. The participants then watched the “response” video believed to be from their interaction partner. In reality there was no interaction partner and the “response” was a pre-recorded video of an attractive opposite sex confederate (see Appendix B). All participants were shown the exact same video and thus exposed to the same behavioural cues.

The video used in the present study was the same one used in Study 5 by

Cameron et al. (2010). In this video, the confederate was above-average in attractiveness. When making the video, Cameron and her colleagues instructed the confederate to depict acceptance cues such as smiling, leaning forward, arms and legs uncrossed, flirtatious glances and so forth. For the present study, the confederate's outdated answers to two questions (i.e., ““What types of movies are your favourites?”; and “What was the last concert you have seen?”) were edited from the video and thus, the video was shortened.

After viewing the response tape from their ostensible partner, participants completed the dependent measures. At the end of the session, participants were probed for suspicion, thanked for their participation, and thoroughly debriefed. In an effort to determine whether the intervention had lasting effects, two weeks after the experiment, post-session data from these participants was collected through an online survey.

Measures

Preliminary Survey (see appendix C). Participants completed Rosenberg's (1965) 10-item global *self-esteem* scale ($\alpha = .81$). Participants responded to items (e.g., “I feel that I am a person of worth, at least on an equal basis with others”) using a 9-point scale (1 = *very strongly disagree*, 9 = *very strongly agree*). For exploratory purposes, participants also complete the Ten Item Personality Measure (TIPI; Gosling,

Rentfrow, & Swann, 2003) in which participants used a 9-point scale (1 = *immediately*, 9 = *never*) to respond to items (e.g., “calm, emotionally stable”).

Participant’s satisfaction with life was ascertained in the preliminary survey through a five-item measure (Diener, Emmons, Larsen, & Griffin, 1985). Participants responded to items (“In most ways my life is close to my ideal,” “The conditions of my life are excellent,” “I am satisfied with my life,” “So far I have gotten the important things I want in life,” “If I could live my life over, I would change almost nothing”) using a 7-point scale (1 = *strongly disagree*; 7 = *strongly agree*). These items were averaged to form a reliable index of *satisfaction with life* ($\alpha = .78$).

Demographic questions as well as filler items that are intended to bolster the cover story (e.g., “How much sleep do you get in an average night?; “Would you rather: read a book or see a movie”?) were also included in the initial survey.

In-session Dependent Measures

Perceptions of acceptance. Participants indicated their perceived acceptance from the confederate with five items (Cameron et al., 2010). Participants responded to all items (i.e., “The other participant probably likes me,” “The other participant probably wants to meet me again,” “The other participant probably enjoyed the interaction with me,” “The other participant is probably willing to spend time with me,” “The other participant probably wants to have a face-to face interaction with

me”), using a 7-point response format (1- *strongly disagree*, 7 – *strongly agree*).

These items were averaged to form a reliable index of *summary perceptions of acceptance* ($\alpha = .85$).

Perceived cues. To determine participants’ perception of acceptance behavioural cues, participants rated how often their interaction partner engaged in seven acceptance cues (i.e., smiling, eye contact with the camera, cross his/her legs, laugh, make a flirtatious glance at the camera fix her hair, agreeing with something the participant said) which were adapted from previous research (e.g., Cameron et al., 2010). Participants responded using a five-point scale (1 = *not at all*, 5 = *most of the time*). To reduce suspicion, participants also rated the frequency of some behaviour that were not displayed by the confederates (e.g., sighing, winking, frowning). Exploratory items tapping perceived rejecting behaviours (e.g., folded arms across chest, moved chair further from camera, avoided making eye contact with camera) were also added to the scale. Frequencies for each of the eight acceptance cues were averaged to form *perceived cues* and the exploratory items were analyzed separately.

Approach and avoidance motivations. To assess motivations towards the confederate, participants completed Andersen, Reznik, and Manzella’s (1996) approach and avoidance motivation scale. Participants indicated their approach motivation with five items (e.g., “How much are you willing to share your feelings

with your interaction partner?") and their avoidance motivation with three items (e.g., "How much do you want to distance yourself emotionally from your interaction partner?") using a 9-point response format (1 = *not at all*, 9 = *extremely*). The approach items were averaged into a single score representing *approach goals* ($\alpha = .85$) and avoidance items were averaged into a single score representing *avoidance goals* ($\alpha = .61$).

State self-esteem. To evaluate total state self-esteem, participants responded to a 12-item scale (McFarland & Ross, 1982) using a 5-point response format (1 = *not at all*, 5 = *extremely*). Seven of these items assessed high state self-esteem (effective, pride, smart, confidence, resourceful, competence, and efficient) and five of these items assessed low state self-esteem (worthless, stupid, inadequate, incompetent, shame). Low state self-esteem items were reverse coded and averaged with the high state self-esteem items to form a reliable index of state self-esteem, ($\alpha = .80$).

Anxiety. Participant's level of anxiety was measured through a 4-item scale (anxious, jittery, worried, and nervous) which asked the participants how they were currently feeling (adapted from Watson, Clark & Tellegen, 1988) using a 5-point response format (1 = *not at all*, 5 = *extremely*). These items were averaged to form a reliable index of *anxiety* ($\alpha = .89$).

Approach behaviour. To assess behavioural indications of approach

motivations, I measured both self-reports and coder-reports of participants' behaviour. First, participants were asked to rate their own specific approach behaviour using the same eight acceptance cues in the perceived cues index (Cameron et al., 2010). Participants answered all question using a 5-point scale (1 = *not at all*, 5 = *most of the time*). To conceal the nature of the measure, these items were intermingled with filler items.

At a later date, coders were recruited to watch the first minutes of the participant's introductory tape to provide a second assessment of approach behaviours. Only the first minute of the tape was observed because research suggests that impressions formed within as little as 30 seconds are highly predictive of impressions formed over a longer period of time (Ambady & Rosenthal, 1993). Each participant was rated by seven coders (five female, two male) as to their general impressions of the participants on two pro-social variables: "warm" and "friendly". Interrater agreement for both variables was high (intraclass r 's = .78 and .86 both p 's < .001).

Four coders were utilized to determine their general impressions of the participants on three pro-social variables "attractive", "likable", and "approachable". Interrater agreement for both variables was high (intraclass r 's = .79 and .86 both ps < .001). Thus, ratings for warm, friendly, attractive, likeable and approachable were combined to create an index that represented the participants' *likeability* ($\alpha = .93$).

Coders rated the specific behaviours using a 7-point scale (1 = *not at all*; 7 = extremely).

Post-session Dependent Measures (See appendix D)

Perceived regard and responsiveness. Two weeks after the study, well-being and quality of social bonds with significant others were assessed using the Perceived Regard and Responsiveness subscale of the Felt Security Assessment (Cameron & Holmes, 2010). Participants responded to this 18-item measure (e.g. “My friends regard me as very important in their lives,” “When I feel sad or distressed, a friend will always be supportive”) using a 9-point scale (1 = *not true at all*, 9 = *completely true*). These items were averaged to form a reliable index of *perceived regard and responsiveness* ($\alpha = .92$).

Relationship initiation. To ascertain if the participant acquired any new relationships since the experiment, participants responded to a 6-item measure answering questions with responses of either “yes” or “no”. Participants indicated whether they had experienced six different events in the two weeks since the experiment (i.e. “met someone new; been out on date with someone new; introduced yourself to someone new; made a new friend; started a conversation with someone you didn’t know; tried to start up a friendship?”)

Satisfaction with life. To assess life satisfaction participants responded to

the same 5-item scale that was included in the preliminary survey (Diener et al., 1985). These items were averaged to form a reliable index of *satisfaction with life* ($\alpha = .88$).

Relationship satisfaction. Relationship satisfaction was ascertained through a 3-item scale (“I am happy in my relationship with: my family; my friends; my romantic relationships”) with participants using a 7-point scale (1 = *not at all*; 7 = *extremely*). Given the fact that the participants were not in committed romantic relationships these items were analyzed separately.

Global self-esteem. Participants completed Rosenberg’s (1965) 10-item global *self-esteem* scale ($\alpha = .88$). Participants responded to items (e.g., “I feel that I am a person of worth, at least on an equal basis with others”) using a 9 point scale (1 = *very strongly disagree*, 9 = *very strongly agree*).

In-session Analysis Strategy

To test the main hypotheses, I conducted hierarchical multiple regressions in which self-esteem (mean centred; $M = 7.12$, $SD = .97$), condition (dummy coded: *control* = 1 *intervention* = 0), and the interaction between the variables were used to predict each of the dependent variables. In this hierarchical procedure, I entered main effects at Step one and the two-way interaction was added to the equation at Step two. I interpreted the main effects from Step one of the analysis, and interpreted the

interaction obtained at Step two. When a significant interaction emerged at Step two of the regression, tests of simple effects were conducted according to Aiken and West's (1991) recommendations.

In-Session Results

First, I analyzed all of the dependent variables for Study 1. To review, I had expected HSEs to be unaffected by the intervention. However, I predicted that LSEs would benefit from the intervention. Thus, in contrast to LSEs in the control condition, LSEs in the intervention condition should exhibit greater approach motivation, lower avoidance motivation, greater perceptions of acceptance in general impressions and in detection of acceptance behaviour. Finally I had anticipated that LSEs in the intervention condition would exhibit greater self-reported and coder-reported approach behaviours.

LSEs in the intervention condition should have experienced enhanced perception of acceptance and their state self-esteem should have also increased. This was not the case. There were no significant main effects of self-esteem or condition nor were significant interactions found for any of the aforementioned Study 1 dependent variables ($p > .05$) except state self-esteem and perceived acceptance. In these exceptions, the pattern of results was not anticipated. Thus, none of the expected hypotheses were supported for these Study 1 dependent variables. In the section that

follows, I will describe only the significant effects that emerged.

State self-esteem. The analysis of state self-esteem revealed a main effect of condition, $\beta = .32$, $t(57) = 2.85$, $p = .006$. Unexpectedly, participants reported lower total state self-esteem in the intervention condition ($M = 3.51$, $SD = .53$) than in the control condition ($M = 3.89$, $SD = .39$). Also, a main effect of self-esteem, $\beta = .35$, $t(57) = 3.09$, $p = .003$, indicated that across conditions, LSEs (i.e. participants scoring one standard deviation below the mean) reported lower total state self-esteem ($M_{est} = 3.36$) than HSEs (i.e., participants scoring one standard deviation above the mean; $M_{es} = 3.69$). The interaction between self-esteem and condition was not significant, $\beta = .046$, $t < 1$.

Perceived acceptance. A marginal main effect of condition was found for perceived acceptance, $\beta = .27$, $t(49) = 1.95$, $p = .057$. Surprisingly, participants in the intervention condition report lower perceived acceptance ($M = 4.13$, $SD = .74$) than participants in the control condition ($M = 4.55$, $SD = .78$). No other effects were statistically significant.

Pro-social behaviour coded in introductory tapes. Coders watched the first minute of the participant's introductory tape to provide a second assessment of approach behaviours. It was predicted that LSEs in the intervention, as opposed to LSEs in the control or HSEs in either condition, would be expected to report higher

approach and pro-social behaviour. This hypothesis was not supported as there were no significant effects for any of the aforementioned items.

Post-session Results

All of the dependent variables for the *post-session* were analyzed using the regression method described earlier. To review, I had expected that in comparison to LSEs in the control condition, LSEs in the intervention condition and HSEs in either condition, would report greater perceived regard and responsiveness, an increase in self-reported relationship initiation behaviour, satisfaction with life, relationship satisfaction scores and an increase in global self-esteem. This was not the case. None of the predicted hypotheses were supported. There were no significant effects found for relationship initiation ($p > .05$), however there were unexpected significant results found for the other four-abovementioned variables. These results will be described in the sections to follow.

Post-session perceived regard and responsiveness. Results revealed no significant main effects but there was a significant interaction between self-esteem and condition for perceived regard and responsiveness, $\beta = -.48$, $t(45) = 2.43$, $p = .019$. Simple effects revealed an unexpected pattern of results (see Figure 1). There was a self-esteem effect in the intervention condition, $\beta = .54$, $t(45) = 2.72$, $p = .009$, but not in the control condition, $t < 1$. In other words, HSEs reported higher perceived regard

and responsiveness than LSEs in the intervention condition but reports were similar between HSEs and LSEs in the control condition. Furthermore, HSEs in the intervention condition tended to perceive more regard and responsiveness than HSEs in the control condition, $\beta = -.38$, $t(45) = -1.99$, $p = .052$. However, the condition effect for LSEs was not statistically significant, $\beta = .27$, $t(45) = 1.41$, $p = .167$. These results suggest that the intervention did not work as predicted; instead of boosting LSEs' perceived regard and leaving the HSEs unaffected it actually boosted HSEs' perceived regard significantly and left the LSEs virtually unaffected.

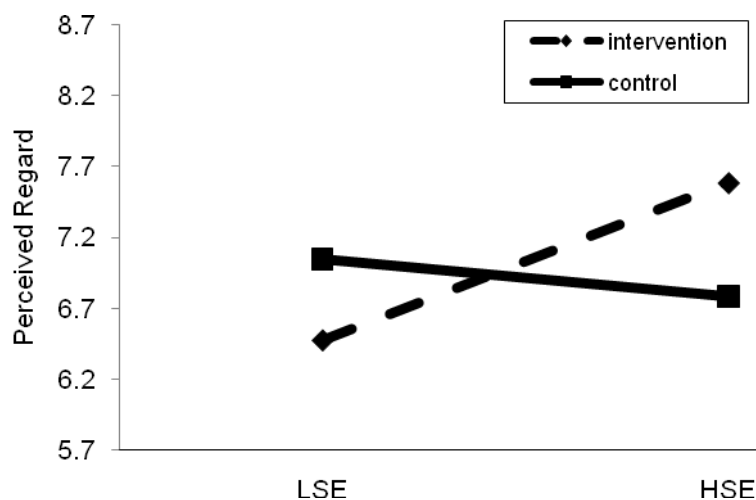


Figure 1. Perceived Regard and Responsiveness as a function of Self-esteem and Video Condition in a Post-session Study.

Post-session life satisfaction. A main effect of self-esteem was found for post-session life satisfaction, $\beta = .29$, $t(48) = 2.09$, $p = .042$. Participants with lower self-esteem report lower life satisfaction ($M_{est} = 4.76$) than participants with higher

self-esteem ($M_{est} = 5.51$). No other effects were statistically significant.

Post-session romantic relationship satisfaction. Results revealed no main effect of either condition nor self-esteem, however a significant interaction between self-esteem and condition for romantic relationship satisfaction emerged, $\beta = -.40$, $t(44) = -1.98$, $p = .054$. As illustrated in Figure 2, simple effects revealed a self-esteem effect in the intervention condition, $\beta = .51$, $t(44) = 2.50$, $p = .016$, but not in the control condition, $t < 1$.

Contrary to the proposed hypothesis, HSEs in the intervention condition reported higher romantic relationship satisfaction than LSEs in the intervention condition but reports were similar between HSEs and LSEs in the control condition. A significant condition effect for LSEs was found, $\beta = -.397$, $t(44) = 1.95$, $p = .058$, suggesting that there was a decrease in romantic relationship satisfaction for LSEs in the intervention condition as compared to LSEs in the control condition. As predicted there was no significant difference between HSEs in the control condition vs. HSEs in the intervention condition, $\beta = -.19$, $t < 1$. Instead of boosting LSEs' romantic satisfaction the intervention actually decreased LSEs romantic relationship satisfaction and left the HSEs, as predicted, virtually unaffected.

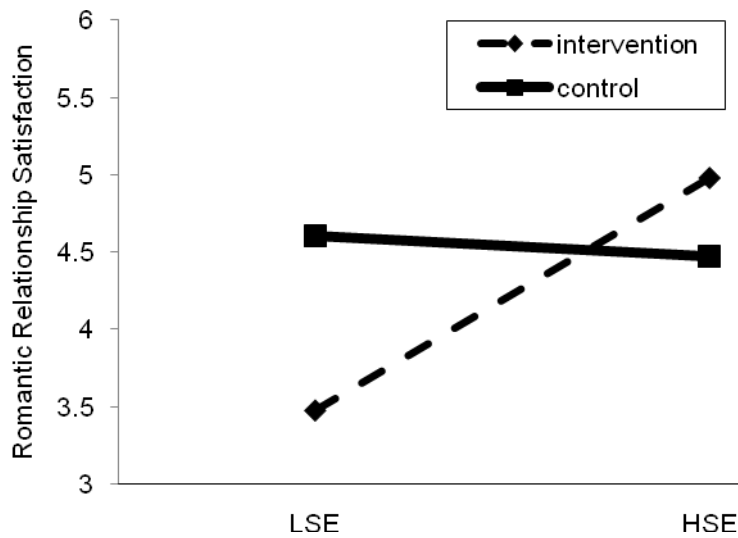


Figure 2. Romantic Relationship Satisfaction as a function of Self-esteem and Video Condition in Post-session Study.

Post-session self-esteem. Self-esteem is controlled for in the Time 1

regression. The regression on self-esteem revealed and anticipated main effect of self-esteem, $\beta = .36$, $t(46) = 2.66$, $p = .011$, indicated that participants with higher self-esteem reported higher self-esteem two weeks later than those with lower self-esteem.

This essentially means that HSEs experienced a boost to their self-esteem after the study. This self-esteem effect was qualified by a significant interaction between condition and self-esteem, $\beta = -.39$, $t(45) = 2.06$, $p = .044$. As illustrated in Figure 3, simple effects show a self-esteem effect in the intervention condition, $\beta = .64$, $t(45) = 3.39$, $p = .001$, but not in the control condition, $t < 1$. In other words, HSEs reported higher post-session self-esteem (i.e., greater increases in self-esteem) than LSEs in the intervention condition, however this was not the case for the control condition.

In addition, a simple effect of condition for HSEs, $\beta = -.39$, $t(45) = -2.16$, p

= .036, suggests that HSEs in the intervention condition reported greater increases to their self-esteem than did HSEs in the control condition. It is clear that the original hypothesis is not supported and that LSEs did not receive the intended improvement in self-esteem that was predicted to be evident two weeks after the intervention. Also surprising is that HSEs, who were expected to not be affected by the intervention, showed a significant increase in their global self-esteem.

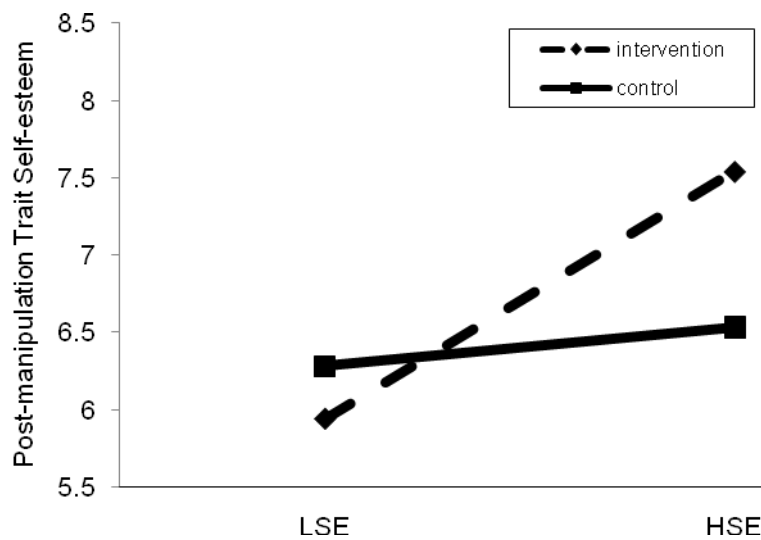


Figure 3. Global Self-esteem as a function of Self-esteem and Video condition in Post-session study.

Discussion

To review, Study 1 unexpectedly revealed, that both HSEs and LSEs in the intervention condition reported lower total state self-esteem and perceived acceptance than those in the control condition. In the post-session study significant differences

were discovered between HSEs and LSEs in the intervention condition in respects to post-session perceived regard and responsiveness, global self-esteem, and romantic relationship satisfaction. HSEs were found to have increased over and above the control in both perceived regard and global self-esteem. LSEs however, only reported significant results on one measure, romantic relationships in which they reveal an unfortunate decline. Interestingly there were no significant differences between HSEs and LSEs in the control group on any of the aforementioned measures (from either Study 1 or the post-session) except state self-esteem where HSEs participants report higher total self-esteem than LSEs. These surprising effects open the door to several questions about the true nature of the control and intervention videos.

Was the control truly a control?

At the beginning of the Study 1, I had told each participant that “it may be possible for you to meet your interaction partner later in the experiment”. Past research by Cameron et al. (2010) deem this an appropriate means of creating felt risk which should have activated participants signature social motivations thereby creating a significant difference between HSEs and LSEs in the control group. In response to social risk, LSEs’ self-protective tendencies should have predominated, leading them to report lower state self-esteem, more anxiety, less perceptions of acceptance, less approach and more avoidance motivation. HSEs’ connection goals should have

outweighed any self-protection concerns and lead them to have higher perceptions of acceptance, more approach and less avoidance motivation. Furthermore, typical self-esteem differences should be further exacerbated under risk and thus HSEs should have evidenced higher state self-esteem and lower anxiety than LSEs.

Surprisingly this was not the case. LSEs and HSEs in the control condition did not differ significantly in perceived acceptance, avoidance motivation, approach motivation, anxiety, self-reported and other reported cues of acceptance. In fact, in the control group, the only measure that differed was their state self-esteem where HSEs tended to have significantly higher state self-esteem than LSEs. This suggests that the control condition was not truly a control. In other words, the video on the evolution of birds appeared to eliminate self-esteem differences present in socially risky contexts. In the general discussion, I return to this topic to fully delineate this possibility.

Was the intervention actually a threat?

If the intervention served its purpose and reduced perceptions of social risk, then LSEs should have experienced the same benefits that HSEs normally experience under social risk. Thus, HSEs and LSEs may have been statistically similar in the intervention condition but LSEs would have experienced an improvement compared to the control whereas HSEs levels should have been similar to their HSEs controls.

However, state self-esteem and perceived acceptance for *both* LSEs and HSEs in the intervention condition dropped significantly as compared to the control group suggesting the intervention video acted as a type of social threat.

To reiterate, the intervention video portrayed ostensible students (of different genders, races and attractiveness levels) discussing times in their lives where they felt socially awkward and did not fit in. I had expected LSEs to walk away with the message “everyone experiences social anxiety, therefore the woman I am about to meet is probably socially anxious too” but instead, it seemed only to make their own experience salient, making them feel less socially competent or perhaps question their social worth. It is possible that because the actors were so relatable to the participants and because the message of the intervention video was so relevant to the participants (i.e. they were anticipating meeting someone new) that the intervention video served as a kind of social threat rather than a “risk reducer”. Instead of conveying the message that LSEs were not alone in their anxiety it appears to have reminded both LSEs and HSEs about social anxiety, feelings of isolation and unrequited belongingness needs. This apparent threat reduced both HSEs and LSEs state self-esteem and in turn this contributed to a significant reduction in their perceived acceptance.

Was random assignment really random?

At this point, it is clear that both the intervention and the control videos did not serve their intended purpose. Perhaps the individuals assigned to each condition differed in other personality variables that lead to the unusual results. In other words, perhaps the manipulation appears to have failed because of other underlying differences between conditions.

To investigate whether the conditions differed prior to the administration of the intervention, simple ANOVAs were conducted on all preliminary measures, including self-esteem. If the random assignment of participants to conditions was truly random, then there should be no differences between the conditions on all measures taken prior to the manipulation. If this is the case, then apriori personality differences between conditions cannot account for the results. The only significant difference between the control and the intervention groups prior to the intervention was extraversion $F(1, 58) = 4.28$ $p = .043$, with the control group reporting higher levels of extraversion ($M = 4.74$, $SD = 1.17$) than the intervention group ($M = 4.16$, $SD = 1.18$). This suggests that the control and intervention prior to the manipulation were, generally speaking, not statistically different and thus the results of the experiment should be due to the effects of the manipulation.

Having ruled out the idea that there was a pre-existing difference between the control and the intervention, and knowing that everything but the video remained

constant throughout the experiment, I concluded that the control video appeared to have the effect of being a distracter or a type of buffer that contributed to the “levelling out” signature social motivation, causing HSEs to stifle their drive to connect but also suppressing LSEs desire to self-protect.

Study 2

In light of these unexpected results a further investigation of the intervention video was necessary. Thus Study 2 was designed to address three main questions.

First, was the intervention video deemed awkward, unrealistic, or in some other way of low quality by participants which might explain the unexpected results of Study 1?

Second, do the videos serve their respective purposes? In other words, would the video selected as the control video produce expected self-esteem differences and thus, act as a control? Would the intervention video produce benefits or detriments? Third, were the effects due to simply the intervention video and not to other elements of the design of Study 1 (e.g., the socially risky context)?

To further explore the effects of the videos, groups of 42 participants were randomly assigned to watch either the intervention or the control video (identical to Study 1). Participants first completed a preliminary survey that contained a measure of global state self-esteem and a measure of personality. After watching the video the participants reported their state self-esteem, approach and avoidance motivation and

life satisfaction.

To address the first question, participants also provided explicit evaluations of the videos. It was expected that if the intervention video was deemed highly relatable/salient to the participants I would expect participants to rate it positively on evaluative items such as “convincing, believable, thought provoking, important, and engaging” (H10). If either or both videos were discounted and thus ineffective in influencing participants, then I would expect them to be rated lowly on items such as realistic, convincing, engaging, thought provoking, important, interesting, and informative (H11).

To address the second question, if the control condition is truly a control then expected self-esteem differences should be apparent with HSEs in the control reporting higher state self-esteem (H12) and life satisfaction (H13) in contrast to LSEs in the control condition. However, if the control condition provided some sort of affirmation or uplifting distraction then I anticipate no significant differences between LSE and HSE in the control condition (H14). Because Study 2 does not employ risk I did not expect a significant difference between HSEs and LSEs in the control in regards to approach (H15) and avoidance motivations (H16).

Furthermore, if the intervention condition acts as intended, and normalized social anxiety, then LSEs should report similar state self-esteem (H17), life

satisfaction (H18), approach (H19) and avoidance motivations (H20) as HSEs.

HSEs should not change on any of these variables (H21). If, however, the intervention acts as a social threat, then both LSEs and HSEs should report significantly lower state self-esteem (H22), life satisfaction (H23) and approach motivation (H24) as compared to LSEs and HSEs in the control. I would also expect LSEs and HSEs in the intervention to show significantly more avoidance motivation as compared to LSEs and HSEs in the control condition (H25). If the findings replicate Study 1, then I should find that the control acts as a buffer or distracter and the intervention acts as a social threat (H26).

Of course it is possible that the results of Study 2 will not replicate Study 1 and will not provide clear evidence on whether the control is truly a control or that the intervention is positive. If that is the case, then I would assume that the presence of social risk is necessary for the intervention video to act as a social threat (H27) and the control video can only provide a buffering or distracting effect when social risk is present (H28). In a sense, such comparisons between studies would address the third question as to whether a socially risky context is necessary for the videos to have the effects demonstrated in Study 1.

Method

Participants. Eighty-four undergraduate students enrolled in introductory

psychology classes at the University of Manitoba participated in exchange for partial course credit. Only participants stating that English was their primary language were asked to participate. All participants were not in committed romantic relationships and all reported that they were heterosexual. Four participants indicated that they did not answer the questions honestly most of the time and thus were excluded from data analyses. Two participants were excluded from further analyses due to consistently scoring as extreme outliers on several questions across several scales. In total, six participants were deleted, leaving a final data set of 78 participants (55 Females, 23 Males). Participants in the final sample ranged from 17 to 39 years of age ($M = 19.29$, $SD = 3.28$).

Procedure. The experiment was conducted in groups of approximately 50 participants. Upon arriving to the experiment, participants were told that the study was designed to assess peoples' opinions of videos. Participants were told that they would be randomly assigned to watch different videos that would not be unlike the types of things they would see on TV. To begin the study, participants completed a preliminary survey containing the self-esteem assessment and the personality measure.

Participants were randomly assigned to either the intervention condition video or the control condition video, in other words, the same videos presented in

Study 1. After watching the video, participants completed the dependent measures.

At the end of the session they were thanked for their participation and given a feedback form about the study.

Measures (See Appendix E)

Preliminary Survey. Participants completed Rosenberg's (1965) 10-item global *self-esteem* scale ($\alpha = .88$), as in Study 1.

Study 2 Dependent Measures

State self-esteem and anxiety. Participants' state self-esteem was evaluated using the same state self-esteem measure as in Study 1 ($\alpha = .76$; McFarland & Ross, 1982). Current anxiety was assessed in the same manner as Study 1 ($\alpha = .77$).

Participants also completed the same Ten Item Personality Measure (TIPI; Gosling, Rentfrow, & Swann, 2003) as in Study 1.

Approach and avoidance motivations. To assess motivations, participants were asked to imagine meeting an attractive opposite-sex person for a first coffee date. The participants were told that this date could be someone they met online or through another method (in class, at a bar, at a party, through a friend, etc.). The participants were then asked to indicate their approach motivations with two items (e.g., "How much would you want your date to get to know you as an individual?", "How interested would you be in spending time with your date on a second date?"; adapted

from Andersen et al., 1996). One item indicated the participant's avoidance motivation (e.g., "How much would you want to avoid revealing yourself to your date?") using a 9-point response format (1 = *not at all*, 9 = *extremely*). The approach items were averaged into a single score representing approach goals ($r = .34$, $p = .001$; adapted from Andersen et al., 1996)

Satisfaction with life. To assess life satisfaction, participants responded to a single item measure of life satisfaction (adapted from Diener et al., 1985; e.g. "In most ways my life is close to my ideal") using a 7-point response format (1 – *strongly disagree*; 7 – *strongly agree*).

Evaluation of video. Videos were evaluated by participants using two scales. The first 6-item scale (I enjoyed watching the video, I thought the video was authentic) used a 7-point response format (1 – *strongly disagree*; 7 – *strongly agree*). The second 13-item scale (I found this video: convincing, engaging, important) used a 9-point response format (1 = *not at all*, 9 = *very much*). These items were analyzed on an individual-basis.

Results and Discussion

To review, Study 2 was designed to investigate three main questions. First, do the participants find the intervention video believable or is it unrealistic? Second, do the videos serve their respective purposes? Does the control video truly perform as

a control? Does the intervention help LSEs to reduce felt risk? Third, is a socially risky context is necessary for the videos to have the effects demonstrated in Study 1?

Analysis strategy. To test the main hypotheses of Study 2, I conducted hierarchical multiple regressions in which self-esteem (mean centred; $M = 6.84$, $SD = 1.37$), condition (dummy coded: control = 1 intervention = 0), and the interaction between the variables were used to predict each of the dependent variables. In this hierarchical procedure, I entered main effects at Step one and the two-way interaction was added to the equation at Step two. I interpreted the main effects from Step one of the analysis, and interpreted the interaction obtained at Step two. When a significant interaction emerged at Step one of the regression, tests of simple effects were conducted according to Aiken and West's (1991) recommendations.

State self-esteem. Similar to Study 1, a main effect of self-esteem was found for total state self-esteem, $\beta = .43$, $t(76) = 4.14$, $p = .001$, indicating that participants with lower global self-esteem report lower state self-esteem ($M_{est} = 3.19$) than participants with higher global self-esteem ($M_{est} = 3.63$). Unlike Study 1, there was no main effect of condition. Also, in contrast to Study 1, a significant interaction effect was found $\beta = .49$, $t(76) = -2.96$, $p = .004$. As depicted in Figure 4, simple effects revealed a self-esteem effect in the intervention video condition, $\beta = .83$, $t(76) = 4.95$, $p = .001$ with HSEs in the intervention reporting significantly higher state self-

esteem than LSEs in the intervention . There was no significant effects in the control condition, $\beta = .22$, $t(76) = 1.77$, $p = .080$, suggesting that HSEs and LSEs in the control reported similar state self-esteem. Ultimately, this suggests that the control video is not a pure control and instead seems to provide some sort of affirmation or buffer, equating both LSEs and HSEs on variables that they are not normally similar.

A significant condition effect for HSEs was found, $\beta = -.367$, $t(76) = -2.645$, $p = .010$, suggesting that there was an increase in total state self-esteem for HSEs in the intervention condition as compared to HSEs in the control condition. There was no significant difference between LSEs in the control condition vs. LSEs in the intervention condition, $t < 1$. HSEs in the intervention however got an unexpected boost in their state self-esteem.

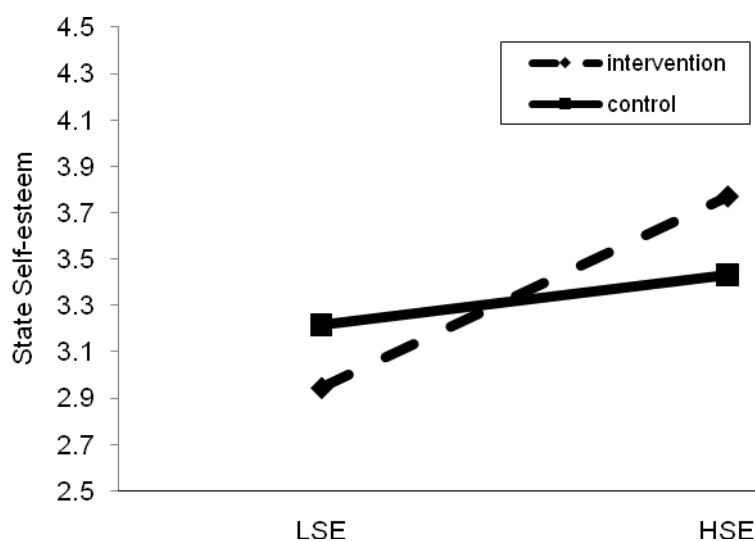


Figure 4. State Self-esteem as a function of Self-esteem and Video Condition in Study 2.

Anxiety. Unlike Study 1, a main effect of condition was found for anxiety, $\beta = -.24$, $t(75) = -2.09$, $p = .040$. Participants who were in the intervention condition reported more anxiety ($M = 2.07$, $SD = .83$) than participants in the control group ($M = 1.70$, $SD = .80$). No other effects were statistically significant.

Satisfaction with life. Similar to Study 1, a main effect of self-esteem was found for satisfaction with life, $\beta = .35$, $t(76) = 3.23$, $p = .002$. Participants with lower global self-esteem report lower life satisfaction ($M_{est} = 4.22$) than participants with higher global self-esteem ($M_{est} = 5.15$). There was no main effect of condition.

Unlike Study 1, in Study 2 a significant interaction effect was found $\beta = -.36$, $t(76) = -2.01$, $p = .048$. As depicted in Figure 5, simple effects revealed a self-esteem effect in the intervention condition, $\beta = .64$, $t(76) = 3.57$, $p = .001$ with HSEs in the intervention reporting significantly more satisfaction with life than LSEs in the intervention. This was not the case in the control condition where no significant results were found $\beta = .19$, $t(76) = 1.46$, $p = .148$, suggesting the control video acted as a sort of buffer.

Furthermore, HSEs in the intervention condition did not report significantly different life satisfaction than HSEs in the control, $t < 1$. A significant condition effect for LSEs was found, $\beta = -.30$, $t(76) = 1.95$, $p = .054$, suggesting that there was a decrease in life satisfaction for LSEs in the intervention condition as compared to LSEs in the control condition. These findings suggest that while LSEs appear to

view the intervention as a type of threat, HSEs appear virtually unaffected.

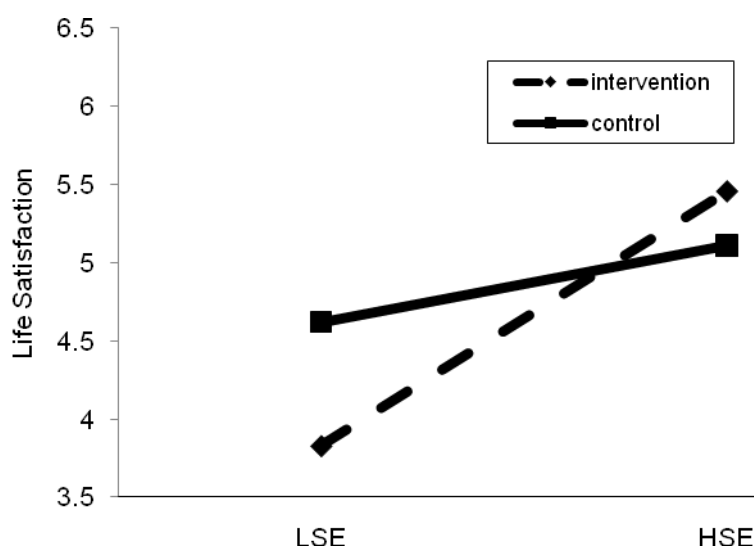


Figure 5. Life Satisfaction as a function of Self-esteem and Video condition in Study 2.

Evaluation of video. Results of the participant's evaluation of the videos reveal significant differences between the control and intervention videos. Table 1 lists the means and standard deviations for all significant and moderately significant evaluation results. Participants by and large thought the intervention video was less positive ($F(2,76) = 13.06, p = .001$), more negative ($F(2,76) = 8.21, p = .005$), less disturbing ($F(2,76) = 6.13, p = .015$) and more realistic ($F(2,76) = 5.75, p = .019$) than the control video. Moderately significant results revealed that participants thought that the intervention video was less offensive ($F(2,76) = 3.65, p = .060$), more important ($F(2,76) = 2.979, p = .08$) and more thought provoking ($F(2,76) = 3.21, p = .077$) than the control video.

These results provide evidence of the salience of the intervention video for LSEs and HSEs and thus it is not surprising that, when risk is present, they appear to relate to the message of the intervention video. It is unclear why participants found the control video disturbing and offensive, however, with means of less than two it is clear that participants did not find either video especially troubling.

Table 1.

Means and Standard Deviations of Significant Results of Video Evaluation Items

<u>Evaluation Items</u>	<u>Intervention</u>		<u>Control</u>	
	<u>Mean</u>	<u>SD</u>	<u>Mean</u>	<u>SD</u>
Positive**	3.83	1.58	4.90	1.04
Negative**	3.57	1.68	2.58	1.36
Disturbing**	1.46	.74	2.23	1.71
Realistic**	6.86	1.75	5.86	1.88
Offensive	1.51	1.14	2.18	1.80
Important	5.49	2.38	4.61	2.10
Thought provoking	5.74	1.73	4.93	2.17

Note. Two items were measured on a 7-point scale (positive and negative) and five items were measured on a 9-point scale (disturbing, offensive, realistic, important and thought provoking).

* ** $p < .01$.

In Study 1, HSEs and LSEs in the intervention condition reported lower state self-esteem and perceptions of acceptance than HSEs and LSEs in the control condition, which suggests that the intervention acted as a type of social threat. That being said, Study 2 indicates that the presence of risk may be a necessary ingredient for HSEs because when risk is not present, HSEs actually experienced a boost in their state self-esteem.

With regards to the control video, if it were truly a control I would have expected risk to activate HSEs' and LSEs' signature social motivations. This was not evident in the results. The only apparent difference between HSEs and LSEs in the control was in Study 1 where HSEs in the control reported higher state self-esteem than LSEs in the control. The control appears to have acted as some sort of buffer or distracter, taking away the effects of risk.

General Discussion

In the present research, I investigated the influence of an intervention intended to reduce perceptions of risk on LSEs signature social motivations and behaviours. The rationale behind Study 1 was to improve LSEs' chances of achieving social bonds through reducing their heightened self-protective motives when risk was present. An intervention focused on reducing social risk seemed promising because if risk was reduced the approach/avoidance conflict experienced by LSEs should also be reduced. This would thereby halt the activation of LSEs' signature social motivations.

It was therefore unexpected that both LSEs and HSEs who watched the intervention video reported both lower state self-esteem and perceived acceptance than LSEs and HSEs in the control condition. Also somewhat unanticipated was that HSEs who had watched the intervention video appeared to have recovered two weeks later whereby they "overshot the mark" and reported heightened perceived regard and

responsiveness as well as a boost in their global self-esteem as compared to HSEs in the control condition.

The unanticipated results from Study 1 led to the creation of a second study. Study 2 was designed to test the effects of the video outside of a socially risky context. The goal of this second study was to explore the unexpected findings of Study 1 and address three important questions: Did the control condition really act as a control or did it act as a buffer or distracter of sorts? Did the intervention condition act as a social threat? Were the effects found in the studies due to simply the intervention video or were there other elements of the study design that came into play?

Control condition

The presence of risk appears to be a key component in how participants interpret the control video. To recap, all participants in Study 1 were subjected to risk and in Study 2 no risk was present.

First, in Study 1 the control video appears to have acted as a buffer or distracter for participants lessening the impact of the participants felt risk. There are several possibilities of why this happened. The video could have acted as a buffer minimizing the felt risk by encouraging participants to look at the bigger picture in life making them feel like grains of sand on the beach (i.e., there are issues bigger than me; life is more than me) which could have downplayed the importance of risk.

It is also possible that the video acted as a distracter, making participants think of something else, giving them a vacation from the context of the situation.

Second, in Study 2 the control video should have produced the expected self-esteem differences and thus acted as a control. Results indicate that there were no significant differences between HSEs and LSEs in the control when risk was not present. These results imply that when risk is not present, the control acts as a sort of affirmation for participants, levelling out the expected self-esteem differences between HSEs and LSEs. This could be due to the topic of the video (i.e. “dinosaurs make me feel good”) or it could simply be that any video would be a distracter and confound the study.

Intervention Condition

Because there was a significant difference between HSEs in the intervention versus HSEs in the control, I can rule out the possibility that the intervention had no affect on HSEs. Why did HSEs in the intervention condition have an increase in state self-esteem? Is it possible that HSEs reacted to social threat using downward comparisons? In a study by Crocker, McGraw, Thompson and Ingerman (1987), it was discovered that when HSEs are faced with threat they derogate outgroups as a means to maintain their positive self-concept. It is possible that HSEs perceived the intervention video as a social threat which activated a need to increase their self-

concept. In an attempt to feel better, HSEs may have partook in a downwards social comparison process that allowed them to derogate the actors (outgroup) in the video as a way to disassociate themselves from them thereby increasing their self-concept. What remains unclear is if HSEs used this tool to deal with social threat in Study 2 why did they not use it immediately in Study 1? The unique combination of risk and social threat combined with the salience of the moment (i.e. they believed they would meet someone new) could have been enough to mute their drive to derogate the actors.

Do LSEs identify more with the depressing story of the actors? Results suggest that LSEs in both Study 1 and Study 2 were threatened by the intervention video regardless of the presence of risk. In the intervention video six actors repeatedly send the message that “everyone in the first year of university is lonely, shy, nervous, and doesn’t fit in.” This familiar message is likely to have resonated with LSEs who appeared to identify with the actors (who were also in their first year of University). However, instead of normalizing fears of anxiety for LSEs the video could have acted as a reminder of just how much they are lonely, shy, nervous, and do not fit in. This is evident in the fact that in Study 2 LSEs in the intervention as compared to LSEs in the control report lower life satisfaction and higher anxiety. Therefore, it is likely that LSEs did not need the added salience of risk to create a

feeling of social threat. The intervention video may have hit too close to home for LSEs and instead of helping LSEs to feel like “everyone else” the video might have only served to remind them of just how socially awkward they are and how, like the actors in the intervention video, they just do not fit in.

Bouncing Back or Overshooting the Mark?

The well-being of the participants was assessed through post-session data two weeks after the experiment. HSEs in the intervention condition had not only recovered but had in fact gone the extra distance to feel better, reporting significantly higher scores in perceived regard and responsiveness and global self-esteem as compared to the HSEs in the control and LSEs in both conditions. Also of interest is that, although not statistically significant, HSEs in the intervention condition also reported initiating more relationships, elevated life satisfaction, and more romantic, family, and friend relationship satisfaction than HSEs in the control condition and LSEs in both conditions. LSEs in the intervention condition however, were not significantly different than LSEs in the control on any of the aforementioned variables except romantic relationship satisfaction where LSEs in the intervention report significantly lower romantic relationship satisfaction than LSEs in the control.

According to Leary and his colleagues (1995) people are equipped with a sociometer, whose sole function is to monitor inclusion and exclusion from the group.

When a person is excluded their self-esteem drops and signals the individual to react in a way that will achieve inclusion. When feelings of inclusion are present self-esteem should, in theory, increase. If the intervention video served as a threat to belonging this could have caused HSEs and LSEs to feel excluded thereby triggering their sociometer. However the question remains; why did HSEs recover and not LSEs?

When a person's self-esteem is threatened they generally go about trying to repair self-worth by restoring esteem in other unrelated domains (McQueen & Klein, 2006). This however, is not the case when belonging is threatened. When individuals experience a threat to their sense of belonging they tend to directly tap their social connections as a means to increase their depleted self-worth (Gardner, Pickett & Brewer, 2000). In fact Knowles, Lucas, Molden, Gardner and Dean (2010) discovered that indirect self-enhancement strategies that were utilized following belonging threats were somewhat unsuccessful at repairing self-esteem. They go on to indicate that manner in which belongingness threats can be assuaged are more rigid than general self-esteem threats. Did LSEs and HSEs in the intervention condition experience a belongingness threat and if so how did they go about trying to rebound from this type of threat?

HSEs were able to restore their self-worth through accessing their social

connections, which is evident in their significant increases in perceived regard and responsiveness. LSEs, however, may be unable or unwilling to directly access social connections. When LSEs' signature social motivation is activated self-protection needs become paramount and thus seeking social support would be deemed too risky (Cameron & Robinson, 2010). LSEs may have tried to indirectly self-enhance which would have most likely been an ineffective strategy that would have proved to be unsuccessful when rebounding from a threat to belonging.

An unexpected strength of this research was the discovery of how HSEs and LSEs differ in their ability to recover from social threat. There is a plethora of research demonstrating the immediate effects of social risk and threat (e.g., rejection) on LSEs and HSEs, yet very little on how LSEs and HSEs recover from such social threats over time. Future research is needed to discover the precise processes which LSEs and HSEs go through in an attempt to recover from belonging threats. This study is a gateway into documenting the rebound techniques of HSEs and the potential implications of the present findings for counseling and programs aimed at increasing LSEs.

Strengths and Weaknesses

A number of strengths were apparent in this research including using an established methodology, exposing the participants to all of the same cues through

using a confederate video as well as the use of measures that were previously standardized.

Tremendous time and effort was expended to create a video that would convey the message “everyone is scared/nervous when in new social situations”. In order to project this message effectively it was imperative that all participants regardless of race, gender or age would not only find the video realistic, but also relatable on a personal level. To increase the likelihood of this occurring I hired several professional actors of different genders, races, ages and attractiveness levels to portray a typical university student. Each actor not only had a script but were also asked to create a story of a person who was nervous and in a new social situation. Actors were instructed to use a different emotion (i.e. confident, shy, unsure, friendly etc.) for each take to ensure a variety of sentiments. To give the impression that these “students” were stopped randomly actors were filmed in various locations around the University. All of these measures were taken in an attempt to make the intervention video as believable and realistic as possible which, according to participants’ evaluations, is exactly what it was.

After all of this effort it was distressing to discover that not only did the intervention video not help LSEs to change their signature social motivation but it appears to have acted as a type of social threat to both HSEs and LSEs. The results of

the first study were so surprising that a second study was in order. Perhaps a pilot study conducted, prior to Study 1, would have been helpful as a means to investigate not only the quality of the video but its' impact on participants.

Another weakness to this particular project is that Study 1 was exclusively male and Study 2 was primarily women, making comparisons between the two studies tenuous. Indeed, the differences between these two studies may simply reflect gender differences and not the presence of social risk. In retrospect I should have confined Study 2 to male participants only.

Implications

Is a true intervention video possible? Ironically, it was the control condition that provided more information about a feasible intervention than the intended intervention video. Before any future studies are conducted it is important to understand why the intervention video decreased risk. Could any distracter task suffice to reduce risk (such as doing math problems) or is there something significant about the content of this particular video? If it is the content of the video, is the essential component to risk reduction that the content needs to have theme that makes risk seem insignificant in comparison? Alternatively, the video reassured the male participants through having them think of dinosaurs (bringing them back to their youth). Another possibility is that the video gave the participants an icebreaker (i.e.

something to talk about with their interaction partner). Future studies may wish to tease apart these issues prior to creating an intervention aimed at reducing risk.

It was intriguing to make the unexpected discovery that HSEs appear to not only rebound from social threat, but actually seem to go above and beyond to feel better. What is unclear about this phenomenon is *when* HSEs begin the process of repairing their self-concept and whether this is an ongoing process. How long did it take for HSEs to begin to recover? How long do HSEs maintain this elevated state of self-esteem and perceived regard? Are there any negative side effects of having this boost in self-esteem? Is it possible that HSEs, in their quest to feel better, over exaggerate their self-worth which may be interpreted negatively by others (i.e. seen as cocky or arrogant)? Future studies may also want to examine a variety of domains to determine if LSEs attempt to repair their self-esteem through avenues not measured in the present research.

Conclusion

The present research intended to create an intervention aimed at reducing the self-protective motives of LSEs. The intended intervention did not perform as expected and was instead perceived by participants as a type of social threat. It would appear that focusing on the fact that other people also experience social anxiety is not an effective tool in helping LSEs to reduce social risk. All was not lost as the current

research also discovered, quite unexpectedly, that using the video intended as a control acted in a way that reduced risk. This is indeed hopeful for LSEs who, when encountering new relationships, tend to focus on avoiding rejection and engage in self-protective behaviors that reduce their likelihood of forming social connections. A reduction in felt risk would clearly be a step in the right direction towards helping LSEs to be a little less defensive and a little more optimistic when encountering the opportunity to socialize with someone new.

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Appendix A

Intervention Video Script (for actors)

Interviewer: We're asking people today about being in new social situations. Please give us a story from your own life since you arrived at the University of Manitoba about meeting new people.

Actor1 (Male):

[Instructed to be calm and confident]

Well, at my first year here I went to this party with a bunch of people I didn't really know and I saw this girl from across the way. I really wanted to go up and talk to her but I didn't know what to do so I was too nervous so I just didn't.

Actor 2 (Female):

[Instructed to be shy and calm]

I'm pretty shy so sometimes I can come across like a snob but my friend Jen is really outgoing so I asked her for some advice and she told me that she's really nervous too, which surprised me because she's really calm all the time.

Actor 3 (Female):

[Instructed to be serious, then friendly]

When I first came here I was worried that I was different than the other students. Everyone else seemed so happy to be here. Everyone seemed so sure that this was the right place for them and I wasn't sure if I would fit in— if I'd make friends – if anyone would like me.

Actor 4 (Female):

[Instructed to be 'matter of fact']

Well, when I first came to U of M I didn't know anybody. I mean you get out of high school and it's a whole new ballgame here. So I found it difficult to meet people and make friendships and I found that there are just so many people here like it's a sea of anonymous faces and they all seem to know where they are going, what they are doing and it's very intimidating.

Actor 5 (Male):

[Instructed to be 'nervous']

Looking back now I can see that during my first year, year and a half of university I was dealing with some social issues/stress that sort of thing. But you know what I

didn't know anyone at the University cause I was used to being at home where I knew my friends I knew my family I didn't have that here at University and that scared me so the first year and a half it wasn't great for me I was nervous all the time.

Actor 6 (Female):

[Instructed to be friendly but a little nervous]

In my first year I didn't know anyone and it was really weird. I mean all my friends from High School ended up going to the University of Winnipeg or getting jobs. I felt so alone even though I was surrounded by so many people and I was really nervous to go up to my classmates and introduce myself.

Appendix B

Confederate script (for introductory video response)

Hi. (look into the camera) So, I guess I'll give my answers now! (Smile & laugh).

(Read Question #1) Question 1... I'm with you on this one! Are we in the same class? I'm surprised I don't know you.... (Smile a little into the camera).

Mmmm... (Read question #2)... what is my favourite holiday and why? (Laugh). Definitely Christmas, no question. Everyone's in a good mood... you get to eat great food (raise eyebrows), plus you get presents! (smile and little laugh).

Okay...(Read question #3) ..my dream job... (Lean forward and look into the camera) being rich! No.. I'd like to do something with kids – like...teaching, or social work maybe? My brother, he teaches grade 5, and it seems like something I could do. But I'd want to work with junior high kids, maybe doing science? (Raise eyebrows and shrug one shoulder slightly).

(Read question #4) Anywhere in the world eh? (Smile into the camera, thinking). Well I'd like to go lots of places, but if I had to pick I'd say Australia... I went on a Contiki tour in Europe after graduation, and all the Aussie's we met were awesome! And I like beaches...and I could learn to surf. (Nod into the camera).

So, last question (smile) Read question #5) How do I usually spend my summers? Well, I've always worked full-time, So that's what I do during the day, during the week. But I hang out with friends after work... go to clubs, have fun. On the weekends, we'll take day trips, go the lake, the beach, play volleyball. (Smile)

(Look at paper last time) Okay, so that's the end of the questions. (put the question sheet down (Smile) bye (smile).

Appendix C
Study 1 Measures**Global Self-esteem**

How do you feel generally?

Think about each statement that follows and rate the degree to which you agree or disagree with it on the following scale.

1	2	3	4	5	6	7	8	9
Very strongly disagree		Moderately disagree		neutral		Moderately agree		Very strongly agree

- a. _____ I feel that I am a person of worth, at least on an equal basis with others.
- b. _____ I feel that I have a number of good qualities.
- c. _____ All in all I am inclined to feel that I am a failure.
- d. _____ I am able to do things as well as most other people.
- e. _____ I feel that I do not have much to be proud of.
- f. _____ I take a positive attitude toward myself.
- g. _____ On the whole I am satisfied with myself.
- h. _____ I wish that I could have more respect for myself.
- i. _____ I certainly feel useless at times.
- j. _____ At times, I think I am no good at all.

Personality Inventory (TIPI)

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

1	2	3	4	5	6	7
Disagree strongly	Disagree moderately	Disagree a little	Neither agree nor disagree	Agree a little	Agree moderately	Agree strongly

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.

Life Satisfaction

Below are five statements with which you may agree or disagree. Using the 1 to 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. The 7-point scale is as follows:

1	2	3	4	5	6	7
Disagree strongly	Disagree	Slightly Disagree	Neither agree nor disagree	Slightly Agree	Agree	Agree strongly

1. _____ In most ways my life is close to my ideal.
2. _____ The conditions of my life are excellent.
3. _____ I am satisfied with my life.
4. _____ So far I have gotten the important things I want in life.
5. _____ If I could live my life over, I would change almost nothing.

Perceptions of acceptance

This survey will ask you questions about the video you just watched in the lab. The first set of questions will ask about general impressions that you think the other participant has of you, and what you think of the other participant. Later you'll be asked about specific behaviours.

What do you think the other participant thinks of you?

1. The other participant probably likes me. (circle one)

1	2	3	4	5	6	7
Completely Disagree			Maybe			Completely Disagree

2. The other participant probably wants to meet me.

1	2	3	4	5	6	7
Completely Disagree			Maybe			Completely Disagree

3. The other participant probably enjoyed the video interaction with me.

1	2	3	4	5	6	7
Completely Disagree			Maybe			Completely Disagree

4. The other participant is probably willing to spend time with me.

1	2	3	4	5	6	7
Completely Disagree			Maybe			Completely Disagree

5. The other participant probably wants to have a face-to-face interaction with me.

1	2	3	4	5	6	7
Completely Disagree			Maybe			Completely Disagree

Approach and Avoidance Motivation

How often did you see the participant engage in the following behaviours? Please respond on the following chart by checking one of the boxes (not at all; a few times; sometimes; many times; most of the time.):

Behaviours	How often did the other participant?.....				
	Not at all	A few times	Some times	Many times	Most of the time
Smile					
Make eye contact with the camera					
Cross his/her legs					
Lean towards the camera					
Tilt his/her head					
Laugh					
Make hand gestures					
Flash his/her eyebrows upwards					
Wink					
Make a flirtatious glance at the camera					
Clear his/her throat					
Look upwards					
Touch his/her face					
Fix his/her hair					
Adjust his/her clothing					
Lick his/her lips					
Look downwards					
Sigh					
Roll his/her eyes					
Frown					
Agree with something I said					
Disagree with something I said					
Express an interest in meeting me					
Express disinterest in meeting me					
Folded arms across chest					
Moved chair further from camera					
Avoided making eye contact with camera					
Shared personal information					
Acted friendly					
Acted disinterested					

* Highlighted items were used in perception of acceptance cues.

State Self-esteem

In the study today, I've been feeling . . .

1 = not at all

2 = a little

3 = moderately

4 = quite a bit

5 = extremely

<input type="checkbox"/> pride	<input type="checkbox"/> incompetent
<input type="checkbox"/> confidence	<input type="checkbox"/> stupid
<input type="checkbox"/> resourceful	<input type="checkbox"/> effective
<input type="checkbox"/> inadequate	<input type="checkbox"/> smart
<input type="checkbox"/> shame	<input type="checkbox"/> competence
<input type="checkbox"/> worthless	<input type="checkbox"/> efficient
<input type="checkbox"/> jittery	<input type="checkbox"/> anxious
<input type="checkbox"/> worried	<input type="checkbox"/> nervous

* yellow highlights indicate state self-esteem

* Terms that are not highlighted indicate the items used to measure anxiety

Perceived cues of acceptance

How often did you engage in the following behaviours in the first video you made for your interaction partner? Please respond on the following chart by checking one of the boxes (not at all; a few times; sometimes; many times; most of the time.):

Behaviours	How often did you.....?				
	Not at all	A few times	Some times	Many times	Most of the time
Smile					
Make eye contact with the camera					
Cross your legs					
Lean towards the camera					
Tilt your head					
Laugh					
Make hand gestures					
Flash your eyebrows upwards					
Wink					
Make a flirtatious glance at the camera					
Clear your throat					
Look upwards					
Touch your face					
Fix your hair					
Adjust your clothing					
Lick your lips					
Look downwards					
Sigh					
Roll your eyes					
Frown					
Agree with something they said					
Disagree with something I said					
Express an interest in meeting the interaction partner					
Express disinterest in meeting the interaction partner					
Folded arms across chest					
Moved chair further from camera					
Avoided making eye contact with camera					
Shared personal information					
Acted friendly					
Acted disinterested					

- Highlighted items were used in perception of acceptance cues.

Appendix D
Post-session Measures

Relationship Satisfaction

Write the number that best represent how you truly feel on the line beside each statement. Some questions will ask you about your friends or your family in general. When answering other questions about romantic relationships, please think of current dating relationships.

1. I am happy with my family....

1	2	3	4	5	6	7
Not at all			Moderately			Extremely

2. I am happy with my friends.....

1	2	3	4	5	6	7
Not at all			Moderately			Extremely

3. I am happy with my romantic relationships....

1	2	3	4	5	6	7
Not at all			Moderately			Extremely

Perceived Regard and Responsiveness

Since participating in the study (put in specific date they participated in the study), how have you felt about your relationships?

Write the number that best represents how you've felt since (date of initial study) on the line beside each statement.

1	2	3	4	5	6	7	8	9
Not at all true		Slightly true		Moderately True		Very true		Completely true

1. ___ My friends regard me as very important in their lives.
2. ___ When I feel sad or distressed, a friend will always be supportive.
3. ___ My friends think I have many serious faults.
4. ___ My friends would help me out, even if it were difficult for them to do.
5. ___ My friends care about me.
6. ___ My friends think I have a good personality.
7. ___ My family members think that I'm a really good person.
8. ___ When I have to ask for help from my family, I think they won't respond to my needs.
9. ___ My family members love me.
10. ___ My family members want me to be a part of their lives.
11. ___ My family members think that I am a valuable person.
12. ___ When I need some assistance, I'm confident that my family will help me out.
13. ___ When I'm in a romantic relationship, my partner typically believes I have many good qualities.
14. ___ When I'm dating someone, that person regards me as very important in his/her life.
15. ___ When I'm in a steady dating relationship, my partner is responsive to my needs.
16. ___ When I'm romantically involved with someone, my partner typically cares a great deal about me.
17. ___ When I'm in a romantic relationship, my partner would not help me if it meant he/she had to make sacrifices.
18. ___ When I'm dating someone, my partner typically thinks that I'm a great person.

Life Satisfaction

Below are five statements with which you may agree or disagree. 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. The 7-point scale is as follows:

1	2	3	4	5	6	7
Disagree strongly	Disagree	Slightly Disagree	Neither agree nor disagree	Slightly Agree	Agree	Agree strongly

___ 1. In most ways my life is close to my ideal.

___ 2. The conditions of my life are excellent.

___ 3. I am satisfied with my life.

___ 4. So far I have gotten the important things I want in life.

___ 5. If I could live my life over, I would change almost nothing.

Relationship Initiation

Since participating in the have you:

	How often?				
	Not at all	Once	Twice	3 times	More than 3
Met someone new?					
Been out on a date with someone new?					
Introduced yourself to someone new?					
Made a new friend?					
Started a conversation with someone you didn't know?					
Tried to start up a friendship?					

Appendix E
Study 2 Measures

State Self-esteem

This scale consists of a number of words that describe different feelings and emotions. Read each item and then mark an appropriate answer in the space next to that word.

Indicate to what extent you feel this way right now, that is, in the present moment...

1 = very slightly or not at all

2 = a little

3 = moderately

4 = quite a bit

5 = extremely

Right now, I feel . . .

_____ interested	_____ irritable	_____ distressed
_____ alert	_____ excited	_____ ashamed
_____ upset	_____ pride	_____ incompetent
_____ confidence	_____ stupid	_____ resourceful
_____ effective	_____ inadequate	_____ inspired
_____ strong	_____ smart	_____ nervous
_____ shame	_____ competence	_____ guilty
_____ determined	_____ scared	_____ attentive
_____ hostile	_____ jittery	_____ worthless
_____ efficient	_____ enthusiastic	_____ anxious
_____ worried	_____ active	_____ afraid

* yellow highlights indicate the items used to measure anxiety

* Blue highlights indicate state self-esteem

Avoidance and Approach Motivation

Imagine meeting an attractive opposite-sex person for a first coffee date today. This date could be with someone you met online or through another method (in class, at a bar, at a party, through a friend, etc.)

Please use the following scale to fill in the blanks in the following items:

1	2	3	4	5	6	7	8	9
Not at all				Moderately				Extremely

1. How much would you want your date to get to know you as an individual?
2. How much would you want to avoid revealing yourself to your date?
3. How interested would you be in spending time with your date on a second date?

Below are some questions regarding the video you just watched. Using the 1 to 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. The 7-point scale is as follows:

1	2	3	4	5	6	7
Disagree strongly	Disagree	Slightly Disagree	Neither agree nor disagree	Slightly Agree	Agree	Agree strongly

1. I enjoyed watching this video.
2. I thought the message of the video was positive.
3. I thought the message of the video was negative.
4. I thought the sound quality of the video was high.
5. I thought the picture quality of the video was high.
6. I thought the people on the video were authentic.

Tell us your reactions to the video you just watched

I found this video . . .

	Not at all							Very much	
	1	2	3	4	5	6	7	8	9
Informative	1	2	3	4	5	6	7	8	9
Amusing	1	2	3	4	5	6	7	8	9
Interesting	1	2	3	4	5	6	7	8	9
Disturbing	1	2	3	4	5	6	7	8	9
Well-written	1	2	3	4	5	6	7	8	9
Offensive	1	2	3	4	5	6	7	8	9
Entertaining	1	2	3	4	5	6	7	8	9
Important	1	2	3	4	5	6	7	8	9
Thought provoking	1	2	3	4	5	6	7	8	9
Engaging	1	2	3	4	5	6	7	8	9
Convincing	1	2	3	4	5	6	7	8	9
Readable	1	2	3	4	5	6	7	8	9
Realistic	1	2	3	4	5	6	7	8	9

What is the main idea in the video you just watched?

Satisfaction with single/dating status

1. How satisfied are you with your single/dating status?

1 Not at all satisfied	2	3	4	5	6	7 Very Satisfied
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Life Satisfaction

In most ways my life is close to my ideal.

1 Not at all	2	3	4	5	6	7 Very
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Honesty Questions

1. I tried to answer the questions honestly.

(1 = not at all; 2 = rarely; 3 = sometimes; 4 = most of the time; 5 = all of the time)

2. I think that my answers on this survey reflect how I truly feel.

(1 = completely disagree; 2 = disagree; 3 = neither agree nor disagree; 4 = agree; 5 = completely agree)