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# Beauty and Belonging: How Appearance Self-Appraisals Affect Perceived Relational Value, Relationship Standards and Desire for Interpersonal Contact

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Running Head: Beauty and Belonging

Beauty and Belonging: How Appearance Self-Appraisals Affect Perceived Relational  
Value, Relationship Standards and Desire for Interpersonal Contact

by

Vanessa M. Buote

M.A., Wilfrid University University, 2006

DISSERTATION

Submitted to the Department/Faculty of Psychology

in partial fulfillment of the requirements for

Doctor of Philosophy in Psychology

Wilfrid Laurier University

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**Abstract**

All individuals seek to develop and maintain social relationships (Baumeister & Leary, 1995). The extent to which people feel loved and accepted within their relationships is called perceived relational value (Leary, 2001). I argue that because sociocultural norms equate physical appearance and social acceptance for women (Thompson, 1999), women's perceived relational value is inordinately linked to their self-appraisals of physical appearance. I also suggest that significant relational consequences can result from this association. In Study 1, I demonstrated that self-appraisals of physical attractiveness and Body Mass Index predicted perceived relational value among women but not men. In Study 2, I found that appearance self-appraisals have a causal impact on perceived relational value among women. I also demonstrated that one consequence of lowered perceived relational value is decreased romantic relationship standards. Study 3 replicated the impact of appearance self-appraisals on relationship standards. Moreover, perceived relational value within a romantic relationship mediated the relation between self-appraisals and relationship standards. Study 4 examined a second consequence of lower perceived relational value: the desire for social contact. A model delineating the relation between appearance self-appraisals, perceived relational value and desire for social contact, such that appearance self-appraisals were linked to lower perceived relational value, which, in turn was linked to a decreased desire for social contact, was tested and the model was found to be a good fit. Overall, these findings indicate that in addition to the behavioural and personal consequences of sociocultural norms for appearance, there are also relational consequences.

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Beauty and Belonging: How Appearance Self-Appraisals Affect Perceived Relational  
Value, Relationship Standards and Desire for Interpersonal Contact

*“Keep Young and Beautiful,  
It's your duty to be beautiful...  
keep young and beautiful,  
If you want to be loved.*

*If you're wise, exercise all the fat off,  
take it off, off of here, off of there...”*

In the 1930s, as part of the musical film “Roman Scandals”, Eddie Cantor encouraged women to “*Keep young and beautiful if you want to be loved*” and that “*if you're wise, exercise all the fat off*” (Jenkins, 2010). Seven decades later, these messages remain a strong presence in society. Today, women are bombarded with ads and commercials for “miracle” diet products and pills, make-up, beauty aids and cosmetic surgery, most depicting idealized models and suggesting that “keeping young and beautiful” will lead to greater acceptance and love from others. Indeed, as one website claimed “Once you get skinny like Megan Fox, they're going to be beating down your door!” and that “People will love you!” (Davy, 2009). Not only do these messages equate physical appearance and social acceptance for women, but these messages may lead to a variety of consequences that can be severely damaging. In my dissertation, I explored the appearance-acceptance link made salient by society, and the harmful relational consequences that may result from this association.

### **The Importance of the Need to Belong and Forming/Maintaining Relationships**

The importance of developing and maintaining relationships with others, from friendships to romantic relationships and family relationships is unequivocal. For decades, theorists have argued that the need for acceptance and a sense of belonging among others is a basic human need. Half a century ago, Abraham Maslow (1968) proposed that the need for belonging - defined as the need for acceptance, love and interpersonal relationships - is surpassed only by essential physiological (e.g., food) and safety (e.g., shelter) needs. Once these very basic needs are fulfilled, it is argued that people seek to affiliate with and gain acceptance among others to satisfy the need for belonging. Around the same time, John Bowlby (1982) put forth his theory of attachment. He highlighted the importance of a primary attachment figure (typically the mother) during infancy for positive relationships and mental health later in life, as well as the importance of attachment relationships throughout the lifespan.

Contemporary theorists have continued to identify social acceptance, belonging and positive relationships as fundamental needs, thought to be experienced by all members of society (Baumeister & Leary, 1995; Leary, 2001). Supporting these claims, Baumeister and Leary (1995) conducted a thorough review of the literature pertaining to interpersonal relations, concluding that the need for belonging is a basic, pervasive need that all individuals are motivated to fulfill through the development of at least a minimum number of positive, long-lasting and important relationships.

### **Benefits of Belonging and Consequences of Rejection**

Baumeister and Leary (1995) have also argued that fulfillment of the need to belong is crucial for psychological and physical well-being and that when belonging

needs are not satisfied serious negative emotional, behavioral, health and adjustment problems may occur. Supporting these theoretical arguments, extant research has highlighted the benefits, positive features and outcomes associated with belonging and acceptance among others. For example, throughout the lifespan, having friends is associated with psychological well-being and may contribute to positive self-esteem and self-worth (Hartup & Stevens, 1997). Additionally, relationships offer social and emotional support which is associated with many positive outcomes (e.g., Cohen & Wills, 1985; Major, Cozzarelli, Sciacchitano, Cooper, Testa & Mueller, 1990).

Considerably more attention, however, has been given to the negative outcomes stemming from a lack of interpersonal relationships and the emotions and reactions associated with interpersonal rejection. Past research indicates that a lack of social integration is linked to suicide rates (Trout, 1980), reduced life longevity (Berkman & Syme, 1979) and poor physical health (House, Landis & Umberson, 1998). Social rejection is linked to a wealth of negative emotions such as sadness, anxiety, loneliness, hurt feelings, jealousy, guilt, shame and aggressiveness (Buckley, Winkel & Leary, 2004; Leary, Koch & Hechenbleiker, 2001; Leary, Twenge & Quinlivan, 2006). Furthermore, experimental studies priming social exclusion reveal that concern with social exclusion can interrupt important everyday functions, which may lead to problematic outcomes. For example, social exclusion threats may lead to decreases in self-regulation (Baumeister, Dewall, Ciarocco & Twenge, 2005) and unintentional self-defeating behaviours (Twenge, Catanese & Baumeister, 2002). In addition, people who have been socially excluded show a failure to delay gratification, an avoidance of self-awareness and are more likely to agree that “life is meaningless” (Twenge et al.,

2002). Moreover, a recent review of the literature pertaining to social rejection and an unfulfilled need for belonging suggests that social rejection has negative impacts on cognitive abilities (e.g., self-regulation, ability to solve complex problems), emotions (e.g., sadness, anger, shame, embarrassment) and behaviour (e.g., retaliation against the aggressor, seeking social contact) (Gere & MacDonald, in press).

Recent research also indicates that personally experiencing social rejection elicits activation in the same brain areas as does physical pain, suggesting that responses to social exclusion (i.e., social pain) may be partly processed through a mechanism similar to that which processes physical pain (MacDonald & Leary, 2005) and that social exclusion does, indeed, “hurt”. For example, Eisenberger, Lieberman and Williams (2003) reported that participants who were excluded by other players during a virtual ball-tossing game (CyberBall) experienced increased brain activity in the dorsal anterior cingulate cortex, the same brain area that has been found to be activated when experiencing physical pain (Ploghaus, Tracey, Gati, Clare, Menon, Matthews & Rawlins, 2000). Moreover, a brain region found to be involved in the regulation and reduction of pain processes and negative emotion appears to also be involved in the regulation of distress associated with social exclusion (Eisenberg et al., 2003). Taken together, this research indicates that severe emotional, cognitive and behavioural consequences can result from social rejection.

### **The Need to Belong and Relational Value**

While all individuals desire relationships (Baumeister & Leary, 1995), the extent to which people are viewed as desirable relational partners varies from person to person, and even within relationships. *Relational value* is defined as the extent to

which an individual views his/her relationship with another individual as important, close and of value (Leary, 2001). For example, John may view his relationship with Michael to be of great importance, while Susan may view her relationship with Mallory as fairly insignificant. The more an individual views a relationship with a target individual as desirable, and views the target person as a desirable relational partner, the higher that target person's relational value (Leary, 2001). For example, given that John views Michael as an important and desirable relational partner, Michael would be said to have high relational value to John. On the other hand, Susan does not view Mallory as a worthwhile relational partner, and therefore Mallory would be said to have low relational value to Susan.

Following this, when a person considers their relationship with someone to be important, they are more likely to make that person feel valued, important, accepted, and cared for. Moreover, they are likely to engage in specific behaviours to try to make the person feel valued, such as offering support, engaging in relationship maintenance behaviors, and seeking that person out for company (Leary, 2001). For example, given that John views his friendship with Michael as important, John would likely engage in behaviours that he hopes will make Michael feel important, valued and cared for. For example, John might invite Michael to outings, offer support, accept his faults or make him a priority. In turn, Michael may notice these behaviours and is likely to experience high *perceived relational value*- the extent to which he *feels* important, cared for and valued by John. Hence, perceived relational value is derived from a persons' *perception* of how much they are valued by another individual (Leary, 2001).

However, perceived relational value may not always be an accurate reflection of actual

relational value. John may value Michael highly, but either because he does not behave accordingly or because Michael does not correctly interpret John's behaviours, Michael may incorrectly experience *low* perceived relational value. Hence, perceived relational value is not a reaction to the objective degree to which relationships are considered important and valued by others, but rather, is the extent to which a person *feels* their relationships are important to and valued by others (Leary, 2001), which may be accurate or inaccurate. In the current studies, I explored perceived relational value, rather than objective relational value, as I suggest that perceived relational value can strongly influence people's behaviour.

Past theoretical arguments proposing Sociometer Theory have suggested that self-esteem functions as a gauge that monitors a person's relational value (Leary & Baumeister, 2000; Leary, Tambor, Terdal & Downs, 1995). Sociometer theory proposes that the purpose of self-esteem is to monitor a person's level of social acceptance and the extent to which they are viewed as desirable relational partners. When social cues point to possible rejection, or outright rejection occurs, the monitor is said to alert the individual by eliciting emotional distress and in turn the individual experiences low self-esteem. On the other hand, when an individual maintains or experiences a high level of acceptance and relational value, the monitor reflects high self-esteem. This theory is compelling and much research regarding self-esteem is argued to support this theory (Leary & Baumeister, 2000). For example, Leary & Baumeister (2000) and Leary (2005b) cite evidence showing that self-esteem varies as a function of inclusion and exclusion, generally revealing that inclusion is linked to high self-esteem and exclusion is linked to low self-esteem, and empirical works

supports this theory (e.g., Leary et al., 1995; Denissen, Penke, Schmitt & van Aken, 2008).

The use of self-esteem as a proxy for relational value is appropriate and logical when examining perceived relational value as a function of inclusion/exclusion, as it allows for a test of the role played by self-esteem suggested by Sociometer Theory (i.e., acting as a barometer for social acceptance). It may not be appropriate to directly test perceived relational value when the manipulation directly involves rejection or acceptance as demand characteristics may be too large to accurately assess the impact on perceived relational value. However, when the manipulation does not directly relate to social exclusion/inclusion, but rather manipulates *cues* of social exclusion/inclusion (i.e., threat to appearance), it is not only more methodologically feasible, but also more sensible and convincing if perceived relational value is tested directly. When the manipulation threatens social acceptance indirectly by threatening self-views, using self-esteem as a primary measure of perceived relational value is problematic because changes in self-esteem could be a function of decreased social acceptance, *or* could simply result from a more negative overall self-view. For example, in my work, I manipulate social rejection indirectly by threatening self-appraisals of physical appearance. If perceived relational value was subsequently tested using a measure of self-esteem, it would be unclear whether the decrease in self-esteem resulted from a) an actual decrease in perceived social acceptance or b) a decrease in overall positive regard resulting from the threat to self-view. Hence, it would not be clear whether the decrease in self-esteem is tied to relational acceptance. Given this, in my studies it was

necessary to test perceived relational value directly to ensure that I was assessing beliefs about relational acceptance, and not simply self-views.

Given that few studies have tested perceived relational value directly, a scale of perceived relational value was developed to assess this construct. Gross (2009) reported using the adjectives “accepted”, “valued” and “respected” to assess perceived relational value. Similarly, the scale I developed assessed constructs such as acceptance and value and importance. I also developed the scale to assess perceived relational value within a variety of relationship types, allowing for an investigation of how distinct levels of perceived relational value may occur within different relationships.

### **Perceived Relational Value From Close and Less Close Others: Do People Only Want to Have High Perceived Relational Value with Close Others?**

Baumeister and Leary (1995) suggest that to maintain high perceived relational value, and fulfill the need to belong, it is crucial to maintain a minimum number of high quality relationships, as these high quality relationships would provide a strong sense of belonging and importance. While I do not dispute that high quality relationships provide a sense of high perceived relational value, I suggest that also having a sense of high perceived relational value within more superficial relationships with others (i.e., peers and acquaintances), within groups and within society in general is important to people. That is, I suggest that, in addition to feeling accepted, valued and important within their close relationships, people want to have a general sense that they are accepted, valued and important within more superficial relationships, various groups and society in general. I suggest that people are motivated to have high

perceived relational value within these more superficial relationships because experiencing rejection or devaluation within these groups can be quite painful and unpleasant and may lead to serious negative outcomes. Similarly, Snapp and Leary (2001) have suggested that being rejected from an unknown other or superficial acquaintance can result in strong negative emotions because this type of rejection reflects an immediate and strong dislike for a person. That is, given that unknown others or superficial acquaintances possess little information about each other, rejection would convey an immediate dislike based on obvious visible physical cues (e.g., appearance, weight, race etc.). Indeed, Snapp and Leary (2001) found that people experienced greater hurt feelings when they were rejected by someone they did not know well (superficial acquaintance) than by someone whom they knew moderately well. Moreover, Buckley, Winkel and Leary (2004) had participants briefly interact with a stranger who later rejected them and results indicated that rejected participants experienced negative emotions, such as sadness and hurt feelings. Interestingly, research finds that rejection from even despised others may lead to negative emotions. For example, Gonsalkorale and Williams (2007) had participants engage in a Cyberball task in which they were either included or excluded by either an in-group (i.e., self-selected political party), an out-group (i.e., self-selected political party), or a despised group (i.e., KKK). They found that *regardless of the group membership* of the other players, compared to participants who were included in the game (i.e., thrown the ball), participants who were ostracized by the other two players reported significantly lower levels of belonging, self-esteem, control (both control over the interaction and control in general) and meaningful existence. That is, even when participants were rejected by

members of a despised group (i.e., Ku Klux Klan) and reported being disgusted by the group, they experienced adverse emotions when excluded. Taken together, this research suggests that being rejected from strangers, superficial acquaintances and even despised other can be an unpleasant and painful experience that leads to hurt feelings, sadness and other negative emotions. It is also likely that being rejected at a societal level is a distressing and upsetting. When a person is rejected by society at large, they may come to feel that the majority of others do not like them and do not value them as relational partners, potentially leading to similar negative emotional, cognitive and behavioural outcomes as being rejected by one individual in particular.

### **Maintaining Perceived Relational Value and Fluctuations in Perceived Relational Value**

Although it is recognized that there are individual differences in the extent to which people experience a need to belong, and that the need for belonging may fluctuate (i.e., people might experience a higher need for belonging after a romantic relationship or friendship dissolves), most people care about, desire and strive for high levels of perceived relational value (Leary & Baumeister, 2000). Not only are people concerned with perceived relational value, but they are continually motivated to maintain the *highest level* of perceived relational value level possible; they want to feel as important and as valued as possible to satisfy their need for belonging (Leary & Baumeister, 2000).

To maintain high levels of both relational value (as determined by others) and perceived relational value, people engage in a variety of behaviors that will enable others to consistently see them as a valuable relationship partner (Leary, 2001). For

example, people might express desirable attitudes, opinions, demonstrate particular skills, increase physical attractiveness, selectively disclose information, or perform behaviors that another person might find interesting or appealing to increase their attractiveness as a relational partner (Leary, 2001). Indeed, empirical research has demonstrated that people engage in self-presentation tactics (e.g., Mori, Chaiken & Pliner, 1987; von Baeyer, Sherk & Zanna, 1981) to maintain a positive image and potentially gain acceptance from others. For example, in a mock job interview, people expressed similar attitudes as the interviewer when told that the interviewer typically hired those that he liked, whereas people expressed dissimilar attitudes when told that the interviewer typically hired those he disliked (Jellison & Gentry, 1978).

However, even though people engage in tactics to increase their chances of being viewed as a desirable relational partner to help maintain high levels of perceived relational value, it is still likely that perceived relational value would fluctuate. That is, people can experience increases and decreases in their sense of perceived relational value (Leary, 2001), which can be felt at a more general level (e.g., “nobody likes me anymore”) or at a relationship-level (e.g., following a fight with a romantic partner). Moreover, fluctuations in perceived relational value might stem from a variety of circumstances, and, importantly, fluxes in perceived relational value can result from *actual* or *perceived* rejection incidents (Leary, 2001). For example, Matt may actually avoid his friend Ben’s telephone call or give Ben the cold shoulder, which might lead Ben to appropriately feel a lowered sense of perceived relational value. On the other hand, Ben might erroneously perceive that Matt has avoided his telephone call, when in fact Matt simply missed his call, or that Matt gave him the cold shoulder, when in

fact Matt was simply distracted. Regardless of whether the incident was real or perceived, the results will be identical: Ben will experience a decrease in his perceived relational value. Therefore, people may experience a lowered sense of perceived relational value regardless of whether an incident was actually intended to lower perceived relational value, or simply interpreted that way by the perceiver.

### **How Do People Respond to a Drop in Perceived Relational Value?**

Decreases in perceived relational value are very negative experiences because they reflect not only rejection, but a sense of devaluation; rejection from a previously-accepting person. This type of rejection can lead to serious negative consequences. Indeed, the most powerful form of rejection is from an individual who was previously accepting (Buckley et al., 2004; Leary, 2001). To be sure, past experimental research has found that the highest levels of sadness, hurt and anger were reported not by those experiencing constant rejection but by those who were initially accepted by an individual and later rejected by that same individual (e.g., Buckley et al., 2004). Given that low perceived relational value leads to negative affect and threatens our need for belonging, it is not surprising then, that when individuals perceive their relational value has decreased, they are very motivated to restore it to its previous level to regain their sense of acceptance (Leary, 2001; Maner, DeWall, Baumeister & Schaller, 2007; Smart Richman & Leary, 2009). Indeed, Maner and colleagues (2007) found that after receiving a rejection threat (e.g., writing about an experience of rejection, or being given false feedback indicating about ending up alone in life) participants reported a greater desire to affiliate and work with others. Maner and colleagues (2007) also reported that, as compared to included participants, participants

who were excluded from a group (i.e., told no one wanted to work with them) viewed people not involved in the rejection as being more sociable, friendly and desirable. Furthermore, studies of cognitive processing reveal that rejection appears to cause heightened attunement to cues and indicators of social acceptance. For example, experimental research demonstrated that rejected participants were more attuned to subtle indicators of social acceptance, such as tone of voice, and emotions from facial expressions (Pickett, Gardner, & Knowles, 2004) and remembered more social-related information from an excerpt than did accepted participants (Gardner, Pickett & Brewer, 2000; Yanine & Pickett, 2010). These findings support the argument that when experiencing a drop in perceived relational value the motivation to regain perceived relational value/acceptance becomes paramount, and subsequently, people focus on important social information, view others more positively and are more open to interacting with non-rejecting others. In addition to more implicit strategies that may occur (such as increased attention to subtle social cues) there are a number of explicit strategies that people can use to increase their desirability as a relational partner. For example, people might engage in self-presentation tactics to make them seem more attractive as a relational partner, engage in desirable behaviors to appear more likeable or engage in reparation acts, such as apologizing if they have engaged in an undesirable behaviour (Leary, 2005a). Past research reveals that, to try to gain acceptance, rejected participants reported greater conformity and cooperation, as compared to included participants (Ouwkerk, Kerr, Gallucci, & Van Lange, 2005; Williams, Cheung, Choi, 2000). Recent research suggests that the strategies people use to regain acceptance might be moderated by individual difference variables, such as

self-esteem and basis of self worth. One study reported that, following an appearance threat (i.e., writing an essay about the parts of the body with which one is dissatisfied), people with high self-esteem who based their self-worth on appearance sought to affiliate with other people, while people with low self-esteem who based their self-worth on appearance chose to avoid interacting with others, and wanted to engage in appearance-enhancing behaviours instead (Park & Maner, 2009).

Taken together, these findings suggest that people are motivated to regain perceived relational value when they feel it has been compromised. Of course, the motivation to interact with others may be influenced by a number of factors, one of which may be whether the factor that led to initial rejection is maintained. That is, if the reason for the rejection is no longer a concern, people may be more comfortable interacting with others and attempting to regain their perceived relational value/acceptance. In addition, if the reason for rejection is a concern only in one specific relational context, a person might feel comfortable approaching others who are not part of that particular relationship context (e.g., poor chess skills might be a reason for rejection from the chess club, but may not be a cause for rejection within a peer group in general). In contrast, however, if the reason for the rejection remains, or is not specific to one relational context, then the rejected person may not feel comfortable seeking out social interactions for fear that they may be rejected for the same reason. For example, if a person feels rejected because of their weight, they may not feel comfortable interacting with others for fear that they may again be rejected because of their weight.

### **The Link Between Physical Appearance and Perceived Relational Value**

As mentioned above, the extent to which a person is viewed as a desirable relational partner varies from person to person and there are many reasons why a person may choose to develop a relationship with one person over another, such as personality characteristics, sense of humour, attitudes, or even proximity (Aboud & Mendelson, 1998; Byrne & Nelson, 1965; Griffitt & Veitch, 1974; Johnson, 1989; Knapp & Harwood, 1977). One factor that has received considerable attention with respect to liking and acceptance is physical attractiveness. Numerous studies have established the social benefits received by those who are highly attractive, pointing to a “what is beautiful is good” stereotype (Dion, Berscheid & Walster, 1972). Research on impression formation has found that attractive individuals are perceived to have more desirable personality traits than are unattractive individuals (Miller, 1970), suggesting that attractive individuals are more appealing as relational partners. Research regarding physical attractiveness and social acceptance generally indicates that physically attractive individuals are more liked, more often selected as potential friends, rated as more popular, considered to be more socially desirable, thought to have better social lives, and perceived as less likely to be alone later in life than are unattractive individuals (Boyatzis, Baloff, Durieux; 1998; Dion et al., 1972; Horai, Naccari & Fatoullah, 1974; Kleck, Richardson & Ronald, 1974). Moreover, physical attractiveness is positively related to peer relations and is a positive predictor of peer acceptance and positive friendships (Kuhlen & Lee, 1943; Lerner & Lerner, 1977). A central feature of attractiveness, at least in Western society, is weight (Rodin, 1992; Rodin, Silberstein & Striegel-Moore, 1984). Focusing on this attribute, past research

has found that overweight individuals experience rejection and feel less liked. For example, in an interview study of self-identified “large” women, women reported feeling as though they were not accepted by society (Tischner & Malson, 2008). Moreover, Crocker, Cornwell and Major (1993) found that when overweight women (15 lbs overweight) were rejected by a male confederate, they attributed the rejection to their weight and did not blame the male for his reaction. That is, even though women felt the rejection was based on their weight they did not attribute the rejection to a negative aspect of the male’s personality or indicate that he was being prejudicial or discriminatory (e.g., he’s unfair). Rather, they believed that the rejection was based on their physical appearance, and that this was acceptable. Hence, they believed that this discrimination was justified and legitimate. Overall, this research highlights two important points. First, people generally have a greater liking for attractive individuals and stronger desire to develop relationships with them (as compared to unattractive individuals), suggesting that within society attractive individuals are viewed as highly desirable relational partners, which may lead physically attractive individuals to have higher perceived relational value. Second, it may suggest that women acknowledge that acceptance is contingent on physical appearance and that they believe this contingency is acceptable.

An important distinction must be made between a person’s objective level of physical appearance as judged by others (e.g., how attractive other individuals think a person is) and a person’s self-appraised physical appearance (e.g., how they feel about their own physical appearance). The above findings highlight a “what is beautiful is good” phenomena (Dion et al., 1972, p.285) in which attractive people (as judged by

others) are treated better and more liked than physically unappealing individuals. In addition to the relationship between more objective physical appearance (as judged by others) and the extent to which a person is liked and accepted by others, there is another level that must be considered - that of how *self-appraised* physical appearance relates to personal feelings of acceptance and liking (i.e., perceived relational value). Hence, two parallel processes may be at work – an actual social bias in which more attractive people are treated better, but also an internal process in which people (especially women) link their self-appraisals of physical appearance to perceptions of relational value.

The implication that *self-appraisals* of physical appearance can affect feelings of perceived relational value is very significant. In society today, women are continually bombarded with images depicting the ideal women, such as fashion models (Buote, Wilson, Strahan, Gazzolla & Papps, in preparation). When exposed to these images, women may compare themselves to these unrealistic standards of beauty (Strahan, Wilson, Cressman & Buote, 2006; Jones, 2002; Richins, 1991), and, as a result, severely undervalue their own physical appearance. That is, because women are comparing themselves to women whom, for most average women, have an unattainable body type, women are bound to come up short in these comparisons. In turn, women may feel unnecessarily worse about their social acceptance and perceived relational value. Hence, this creates a paradox – even women who may be viewed as highly physically attractive by others and whom may receive better treatment, could simultaneously feel physically unattractive and then feel less accepted and valued. Indeed, Hollywood actress Kate Beckinsale, who was named “Sexiest Women Alive”

in 2009 according to Esquire Magazine (Popcrunch, 2009) revealed that “*I’ve always had doubts about my looks. Most women have body issues and I’m no different.*”

(ContactMusic.com, 2009).

### **The Current Research: How Self-Appraisals of Physical Appearance are Linked to Perceived Relational Value**

Much of the theoretical and empirical work looking at indicators of perceived relational value (i.e., self-esteem, acceptance/rejection and the consequential emotional, behavioural, physical responses) has focused on how these indicators vary as a function of another person’s behaviour. That is, indicators of perceived relational value have often been examined in relation to an incident where a person experiences rejection from another individual (e.g., Buckley et al., 2004; Leary, Kelly, Cottrell & Schreindorfer, 2006; Leary, Koch & Hechenbleiker, 2001). Building on these past suggestions, and empirical evidence demonstrating how another individual’s behaviour might impact perceived relational value (e.g., Leary et al., 1995), I suggest that fluctuations in perceived relational value can also result from *self-perceptions*. That is, I suggest that not only can perceived relational value be impacted by the way people are treated by others, but it can be impacted by the way people perceive themselves in various domains. Specifically, I suggest that self-appraisals of physical appearance may be linked to perceived relational value, especially among women.

In contemporary society, sociocultural norms send women a strong and consistent message: social acceptance and value is based on physical appearance and weight (Buote et al., in preparation; Thompson, 1999). Given the omnipresent nature of these norms, the link between social acceptance and physical appearance may

become quite salient to women. I suggest that due to these norms, women's self-appraisals of physical appearance may be strongly linked to their perceived relational value. In particular, I argue that cultural ideals can impact the extent to which women feel accepted, loved and valued by others, due to a two step process in which appearance self-criticism first results from the cultural ideals and, second, from the appearance-acceptance link made salient by these norms.

### **The Role of Cultural Norms in the Association Between Appearance Self-Appraisals and Perceived Relational Value**

Society presents women with a very strict, narrowly defined category of beauty. Past research has shown that the idealized female body type is young, thin and attractive (Buote et al., in preparation; Spitzer, Henderson, & Zivian, 1999; Wiseman, Gray, Mosimann & Ahrens, 1992) and women are bombarded on a daily basis with images of the ideal woman who is not only thinner than 98% of the American population, but also further perfected by airbrushing or digital photo refinement techniques (Rodin et al., 1984; Smolak, 1996; Wolf, 1991). Much research has revealed the negative impact of cultural norms for appearance on body satisfaction among women. The idealized images depicted in society are extremely difficult, if not impossible, for the average woman to attain, given the nature of the ideal as well as women's natural tendency to store more fat and possess lower metabolic rate compared to men (e.g., Arciero, Goran, & Poehlman, 1993; McKinlay & Jeffreys, 1974). Whereas models and women with idealized body types are therefore not logically "relevant" comparison targets (i.e., Festinger, 1954; Wood, 1989), research shows that women do compare themselves to these women (Jones, 2002; Richins, 1991; Strahan

et al., 2006). Given the nature of this upward comparison (i.e., women are comparing themselves to a virtually unattainable body type), women may become very self-critical of their appearance and are likely to become dissatisfied with their physical appearance. To be sure, past research has revealed that exposure to culturally idealized images (i.e., images of young, attractive, thin women) has negative implications for body satisfaction. Correlational studies have demonstrated that, among women, greater exposure to cultural norms (through advertisements, magazines, television, and music videos) is associated with greater body dissatisfaction (Abramson & Valene, 1991; Bissell & Zhou, 2004; Cafri, Yamamiya, Brannick, & Thompson, 2005; Lorenzen, Grieve, & Thomas, 2004; Murnen, Smolak, Mills, & Good, 2003; Sands & Wardle, 2003). Not only is exposure linked to body dissatisfaction, but greater internalization of these sociocultural norms for ideal appearance is also associated with increased body dissatisfaction (Knauss, Paxton, & Alsaker, 2007; Murnen et al., 2003; Thompson & Stice, 2001). Moreover, a substantial amount of research has investigated the behavioural correlates (e.g., eating and dieting behaviour) of exposure to idealized images, and finds that greater exposure to sociocultural norms via media consumption (e.g., advertisements, magazines, television) is linked to more eating disorder symptoms among women (e.g., Bissell & Zhou, 2004; Stice, Schupak-Nueberg, Shaw & Stein, 1994), decreased food consumption (Strahan, Spencer & Zanna, 2007) and restriction of calories or the use of diet pills (Thomsen, Weber & Brown, 2002).

Second, because society depicts a singular, homogenous ideal female body (thin, attractive and young; Buote et al., in preparation), this suggests to women that *only this one* appearance and body type is acceptable and that to be accepted within

society, women must have this body type. Indeed, one study found that women exposed to idealized images more strongly associated “heavy” with “rejection” than women exposed to control images (Strahan et al., 2007). Hence, exposure to idealized images may promote the association between appearance (i.e., weight) and social acceptance.

In sum, I suggest that, as past research has found, when women are exposed to norms for idealized appearance (e.g., through magazine covers, ads, billboards, television etc.), they become self-critical of their physical appearance. Given that the norms and images are so prevalent within society, it is likely that women often feel poorly about their appearance. In turn, because of the acceptance-appearance link made salient within society, women who are feeling poorly about their physical appearance, may also feel less accepted, loved and valued (lowered perceived relational value).

In contrast to the singular ideal appearance norm strongly conveyed by society for women, society presents men with a less clearly-defined ideal appearance (Buote et al., in preparation). The images of men found within society present a greater variability of appearance and age, with many of the men having an average body type and appearance (Buote et al, in preparation). This suggests then that men are less likely to self-criticize their appearance because they may compare themselves to any one of the body types and appearances depicted in the images found within society. That is, while women are presented with only one comparison target (idealized body type), men may compare themselves to the idealized body *or* to any one of the more average body types seen within society. Following this, men should engage less frequently in

self-criticism, and thus feel more satisfied with their appearance. Indeed, past research reveals that men are more satisfied with their appearance than are women (Feingold & Mazzella, 1998; Muth & Cash, 1997; Pliner, Chaiken, & Flett, 1990). Moreover, the presence of the heterogeneous male images within society may suggest to men that acceptance is not contingent on appearance and that they may fit into any of a number of appearance categories and still be accepted. In sum, I suggest that, as past research has found, men are less likely to self-criticize and are more satisfied with their physical appearance. In turn, given that the norms suggest that men may fit into a number of appearance categories and be accepted, I suggest that even when men do not meet the ideal appearance (young, muscular, attractive; Buote et al., in preparation), their self-appraisal of physical appearance should not be as strongly tied to their perceived relational value as it is for women.

### **Overview of Studies**

Based on my suggestion that cultural norms link physical appearance and acceptance (especially for women), in Study 1 I sought to test the correlational links between self-appraisals of physical appearance (and other domains) and perceived relational value among men and women. I expected that self-appraisals of physical appearance would be related to perceived relational value among women, but not among men. In Study 2, I aimed to extend the correlational findings of Study 1 by examining the causal role of appearance self-appraisals on perceived relational value. More specifically, I aimed to test whether unfavourable self-appraisals of physical appearance would lead to a corresponding decrease in perceived relational value. I also explored one relational consequence of unfavourable self-appraisals of physical

appearance; decreased romantic relationship standards. I suggested that the direct impact of appearance self-appraisals on romantic relationship standards may be mediated by general perceived relational value, and test a model based on this suggestion. In Study 3, I aimed to replicate the impact of appearance self-appraisals on relationships standards found in Study 2. I also extend and build on Study 2 by examining the role of perceived relational value specific to a romantic relationship on romantic relationship standards. I tested a mediation model in which I proposed that perceived relational value specific to a romantic relationship mediates the relationship between appearance self-appraisals and relationships standards. Study 4 examined a second relational consequence of unfavorable appearance self-appraisals. Namely, I explored a model in which I proposed that unfavorable appearance self-appraisals lead to decreased perceived relational value, which in turn affects the desire for social contact.

### **Study 1: The Connection Between Self-Appraised Physical Appearance and Perceived Relational Value**

Study 1 was designed to test the relation between self-appraised physical appearance and perceived relational value among men and women by exploring the connection between self-appraisals in various domains and perceived relational value. I expected that, among women, self-appraisals of physical appearance, but not self-appraisals in non-appearance domains, would be related to a general sense of perceived relational value. For men, I expected a more heterogeneous pattern of correlations in which self-appraisals of physical appearance would not be related to perceived

relational value, but self-appraisals in non-appearance domains might be linked to perceived relational value.

### **Method**

**Participants.** Participants were 120 undergraduate students (83 females; 37 males). The mean age of the sample was 18.69 ( $SD = 2.19$ ). Average Body Mass Index (BMI) was 24.21 ( $SD = 4.85$ ), which is in the normal range (Centers for Disease Control and Prevention, 2009).

### **Measures**

**General Relation Value Scale (GRVS).** Participants' general perceived relational value was assessed by a scale developed by the author. This scale was comprised of 15 items assessing perceived relational value within 5 relational contexts, including friends, peers, family, important people and society (3 items per context). Participants completed each item on a scale ranging from *Disagree* (1) to *Agree* (5). Sample items from this scale included "*My friends make me feel unwanted*" (reversed) and "*Society accepts me as I am*". Cronbach's alpha for this scale was .80.

**Self-Appraisals Scale.** Participants completed a four-item scale developed by the author to assess participants' self-appraisals in four domains, including physical attractiveness, academic success, extracurricular involvement and athleticism. Participants responded on a scale ranging from 1 (*less [domain] than most others*) to 7 (*more [domain] than most others*), with higher scores indicating more favourable self-appraisals. An item from this scale is "*On the following scale, please indicate how physically attractive you are.*".

**Demographics.** Participants completed a demographics form with questions pertaining to age, gender, major and ethnicity.

**Estimated Height and Weight.** Participants were asked to provide their best estimate of their height and weight.

### **Procedure**

Undergraduate students were recruited from a participant pool to participate in a study ostensibly examining how people feel about themselves and how they think others feel about them in domains relevant to university students. Participants completed a questionnaire booklet comprised of demographic information and questionnaires, and provided their estimated height and weight. Upon completion of the questionnaire booklet, participants were told that sometimes people do not know how much they weigh and were asked permission to be weighed to ensure an accurate weight was reported. Upon consent, the participant was weighed and their weight was recorded. Once completed, the participant was debriefed, thanked and dismissed.

### **Results**

**Relation Between Self-Appraisals and Perceived Relational Value Among Men and Women.** To investigate the relation between self-appraisals in various domains (e.g., self-ratings of appearance) and perceived relational value, multiple regression analyses were conducted separately for men and women. Self-appraised physical attractiveness, academic success, extracurricular activity involvement, athleticism and BMI (computed with actual weight) were included as predictors, and perceived relational value was included as the dependent variable (See Table 1 for beta weights and significance levels of all predictors for both men and women). BMI was

included in the model because weight, and more specifically thinness, is a central aspect of the appearance norm for women (Rodin et al., 1984), thus it is possible that BMI would contribute to perceived relational value over and above self-appraisals of physical appearance. Results of the multiple regression analysis supported my hypothesis, and revealed that for women, self-appraisals of physical attractiveness was a significant positive predictor of perceived relational value,  $t(78) = 4.06, p < .001, (\beta = .45)$ , indicating that women who perceived themselves to be more physically attractive reported feeling more valued, loved and accepted within their relationships. In addition, BMI was a marginally significant negative predictor of perceived relational value,  $t(78) = -1.91, p = .06, (\beta = -.20)$ , and indicated that the higher a woman's BMI, the less she felt accepted, valued and loved within her relationships. All other self-appraisal domains were non-significant predictors ( $ts < 1.41, ps > .16$ ). Results for men indicated that only self-appraised athleticism emerged as a marginally significant negative predictor of perceived relational value,  $t(35) = -1.77, p = .09, \beta = .40$  such that men who reported being more athletic reported feeling more accepted, loved and valued within their relationships. All other self-appraisals were non-significant predictors, ( $ts < -1.16, ps > .26$ ).

## **Discussion**

Overall, these findings indicate that the more physically attractive a woman felt, the more she felt loved, valued and accepted within her relationships, revealing that self-appraisals of physical appearance play a significant role in perceived relational value among women. These findings suggest then, that even though objective indicators of attractiveness were not assessed, if a woman *feels* physically

unattractive, she may also perceive low relational value. Moreover, the heavier a woman actually was (a somewhat more “objective” measure of how well a woman meets societal standards), the less she felt loved, valued and accepted within her relationships. Importantly, self-appraisals of physical appearance and BMI emerged as the *only* predictors of perceived relational value for women and their independent contributions indicate that physical appearance and BMI are unique predictors of women’s perceived relational value. The finding that both self-appraisals of appearance and BMI predicted perceived relational value may indicate that both actual and perceived attractiveness independently predict feelings of acceptance.

In contrast, neither self-appraised physical appearance nor BMI were significant predictors of perceived relational value among men, indicating that self-appraisals of physical appearance may not play a major role in the extent to which men feel loved, valued and accepted by others. The only predictor to emerge for men – self-appraised athleticism – revealed that more favourable appraisals of athleticism would be related to higher perceived relational value.

Study 1 provided evidence of a connection between self-appraisals of physical appearance and perceived relational value among women. While this provides a first step in establishing a link between these variables, it does not allow for conclusions about causation. Based on my correlational findings, I contend that fluctuations in self-appraised physical appearance should result in corresponding fluxes in perceived relational value. In everyday life, fluctuations of self-perceived physical attractiveness are common; a new pimple, jeans that do not fit, a peculiar look from a stranger, a social comparison with an attractive friend or exposure to idealized images may all

negatively impact the extent to which an individual currently feels physically attractive. In Study 2, I sought to examine whether an appearance threat, designed to experimentally induce unfavorable self-appraisals of physical appearance, would result in lowered perceived relational value among women.

### **Study 2: What Women Want: How Self-Appraised Physical Appearance Impacts Relationship Standards**

Expanding my past correlational research demonstrating a strong connection between self-appraisals of physical appearance and perceived relational value for women, the first purpose of Study 2 was to establish a causal relation between self-appraisals of physical appearance and perceived relational value among women. I expected that when women experienced an appearance threat designed to induce unfavorable appearance self-appraisals, they would report a lowered sense of perceived relational value, as compared to a control condition.

Notably, however, I expected that perceived relational value within certain relationship contexts might be particularly vulnerable to the effects of an appearance threat (i.e., unfavorable appearance self-appraisals). It was anticipated that within relationship contexts that may be more superficial (relative to other relationships such as family relationships), such as society in general and peer and friend contexts, perceived relational value might be more severely impacted by an appearance threat (i.e., unfavorable appearance self-appraisals). Past research finds that physical appearance is linked to social acceptance among peers and friends (e.g., Boyatzis et al., 1998, Lerner & Lerner, 1977), suggesting that acceptance within these contexts might be contingent on physical appearance. In addition, sociocultural norms conveying the

message that a woman's social acceptance is based on her physical appearance (Buote et al., in preparation; Thompson, 1999) may lead women to feel less accepted, valued and loved within society in general when she feels poorly about her physical appearance. Conversely, it was expected that within closer relationships, such as relationships with family members or self-nominated important people, perceived relational value may be less vulnerable to the effects of fluctuations in self-perceived physical appearance. Within these relationships, a temporary insecurity about physical appearance may not be enough to lead to insecurities about perceived relational value, as people might feel relatively more comfortable in their knowledge that significant others value, accept and love them.

Importantly, the current study used an explicit measure of perceived relational value, and by using such a measure, high standards are set in terms of detecting variation between an appearance threat condition and a control condition. That is, attempting to induce people to explicitly admit that others value, accept and love them less may meet with some resistance, hence even relatively small differences in perceived relational value would be notable.

A second aim of this study was to explore women's response to the relational insecurity (i.e., lowered perceived relational value) expected to result from a threat to physical appearance self-appraisals. In particular, I wondered if an unfavourable appearance self-appraisal might lead to a decrease in romantic relationship standards among women. Earlier, I suggested that within close relationships, a temporary threat to self-appraised physical appearance may not be strong enough to lead to corresponding insecurities about perceived relational value. As such, it might be

argued that, given that a romantic relationship is likely a close relationship, a threat to self-appraised physical appearance should not lead to perceived relational value insecurities within this relationship. I suspected, however, that romantic relationships would still be vulnerable to an appearance threat since attractiveness plays a large role in romantic pairings (e.g., Walster, Aronson, Abrahams & Rottman, 1966). Indeed, past research has found that physical appearance is one of the main reasons romantic partners are initially attracted to each other (Kurzban & Weeden, 2005; Luo & Zhang, 2009; Eastwick & Finkel, 2008), and this may be particularly true for young adults. Moreover, although the importance of physical attractiveness may decrease with relationship length (i.e., may become less important after 20 years of marriage), it likely remains a relatively important variable in romantic relationships. The importance of physical appearance may be particularly strong in the relationships of young adults (i.e., the sample used in these studies), as they likely have been dating their current romantic partner no more than a few years. Given the importance of physical appearance in romantic relationships, I expected that a threat to self-appraisals of physical appearance would cause relational insecurities, which would lead women to decrease these relationship standards. As previously mentioned, people are highly motivated to restore perceived relational value and belongingness when they sense it has been compromised (Baumeister & Leary, 1995; Maslow, 1943). Therefore, when self-appraisals of physical appearance are threatened, and subsequently harm perceived relational value, women might consider acting differently within their romantic relationships in an effort to maintain or promote perceived relational value. Insecurities about perceived relational value may lead women to feel they are at risk of romantic

rejection. To decrease the likelihood of a romantic partner's rejection, one strategy a woman may use is to lower her relationship standards and be more willing to accept poorer treatment from a current or potential partner. For example, if a woman feels poorly about her physical appearance, and thus feels a lowered sense of perceived relational value, she might be willing to tolerate more negative behaviours from her romantic partner, such as lying and/or cheating. At the same time, she might lower her expectations for her partner's positive behaviours, such as expecting fewer indications that they care for her, make her feel important or special or make her a priority. While lowering relationship standards may not be the best strategy for ensuring a positive, loving, lasting relationship, it may ensure that a woman can avoid the feared romantic rejection.

Little research has investigated the connection between self-appraisals of physical appearance and romantic relationship standards. However, this research indicates that, among women, both objective ratings of and self-appraisals of physical attractiveness are associated with higher relationship standards (i.e., more stringent criteria pertaining to physical appearance, behaviours and traits) for a potential romantic partner. Past research has found that women's self-appraised physical appearance was positively correlated with their romantic partner standards (Walster et al., 1966). In a recent study (Buss & Shackelford, 2008), women were rated by objective observers on face, body, and overall attractiveness and results revealed that objective ratings of women's overall physical attractiveness were significantly correlated with their romantic partner standards (significant correlations also emerged for body and face, but were less consistent). In particular, women who were more

physically attractive overall were more likely to indicate a stronger desire for their male partner to 1) have good genes (i.e., be physically fit, masculine, good-looking, physically attractive and have sex appeal), 2) good investment ability (i.e., potential to earn more money, higher potential income, have graduated from college), 3) good parenting skills (i.e., likes children, wants to raise children well, desires children, desires a home and is emotionally stable and mature), and 4) to be a loving partner. These findings prompted the author to suggest that “attractive women want it all” (Buss & Shackelford, 2008, p. 134). A study conducted by Waynforth and Dunbar (1995) used personal advertisements in newspapers to investigate the relation between physical appearance and relationship standards. They found that women who included indicators of their own physical attractiveness in their personal ad listed more traits that a potential mate must possess than did women who did not provide indication of their own physical attractiveness. The authors suggest that women highlighting their appearance are likely to be more physically attractive; hence, more attractive women are likely to possess higher standards. These studies do suggest that more attractive women may possess higher relationship standards, though a causal link is not established. Notably, while Buss and Shackelford (2008) employed objective ratings of physical attractiveness, in the current study, I take a different approach and investigate self-perceptions of physical attractiveness. Employing self-ratings of physical appearance, rather than objective ratings, allows for an understanding of the internal processes of self-perception that may occur when appearance is threatened. That is, regardless of their objective level of attractiveness, when women *feel* poorly about their physical appearance, are their relationship standards negatively impacted?

Similarly, past research examining perceived relational value (or related constructs) and romantic relationship standards is limited. One study found that women's self-appraised mate value (beliefs about what one has to offer as a potential mate in terms of attractiveness, social status, intellect etc.) was positively correlated with minimum standards for a short and long-term partner, such that women reporting high mate value reported higher relationship standards (Regan, 1998). While mate value was conceptualized somewhat differently than perceived relational value, these findings suggest that perceived relational value may be linked to relationship standards.

In summary, I first hypothesized that when women experience an appearance threat intended to induce unfavorable appearance self-appraisals, they would feel a lowered sense of perceived relational value, as compared to a control condition (Hypothesis 1). Next, I hypothesized that women's self-appraisals of physical appearance would be related to relationship standards, such that women who are induced to feel more poorly about their physical appearance would report lower romantic relationship standards (Hypothesis 2). In addition, I proposed a mediation model, such that when women experience a threat to self-appraisals of physical appearance, they subsequently experience insecurities about their perceived relational value. In turn, they may temporarily lower their relationship standards by accepting more negative behaviours or fewer positive behaviours to avert the potential for interpersonal rejection.

## Method

**Participants.** Participants were 63 female undergraduate students. The mean age of the sample was 18.54 ( $SD = .95$ ). Average BMI was 23.30 ( $SD = 4.79$ ), which is in the normal range (Centers for Disease Control and Prevention, 2009).

Approximately one third of women (34.1%) reported currently being in a romantic relationship (Mean relationship length = 16.69 months,  $SD = 12.53$  months), whereas approximately two thirds of women (65.1%) reported being single.

## Measures

**Appearance Manipulation.** Following Park and Maner's (2009) procedure, participants in the Appearance Threat condition completed the following question "*We all have parts of our body or physical appearance that we are dissatisfied with or feel insecure about. Please take a moment to think about the aspects of your body or physical appearance you do not like about yourself and list them in the spaces below.*" (p. 206). Participants in the control condition were asked to list the items in the room; "*If you look around, there are many objects in the room you are in. Please take a moment to think about all the objects you see in the room and list them in the spaces below.*" (p. 206).

**Appearance Satisfaction.** Appearance satisfaction was measured by the appearance subscale of the Current Thoughts Scale (Heatherton & Polivy, 1991). This subscale consists of 4 statements, such as "*I feel satisfied with the way my body looks right now*" and "*I am pleased with my appearance right now*". Participants indicated their level of agreement with each item on a scale from 1 (*not at all*) to 5 (*extremely*). Cronbach's alpha for this scale was .87.

**Romantic Relationship Dissolution Standards.** A scale developed by the author was used to assess romantic relationship dissolution standards, that is, willingness to accept negative behaviours from a romantic partner before abandoning a romantic relationship. Participants completed this scale in regards to their romantic partner (if participants did not have a romantic partner, they were asked to complete the scale in reference to a future relationship). The scale consisted of a list of six negative behaviours that a romantic partner could engage in, including: *not being honest, cheated on me with another person, flirted with another person, yelled at me, insulted me/put me down, and talked behind my back*. For each of the six behaviours, participants were asked to indicate the frequency with which the behaviour would have to occur for them to leave their partner. Specifically, participants were asked to complete the phrase “I would leave this relationship if my partner...” with each of the 6 items (i.e., I would leave this relationship if my partner cheated on me) and then to indicate on a scale ranging from 1 (*if this happened even once*) to 7 (*if this happened regularly*) how often the behaviour would have to occur within the relationship for her to leave the relationship. All items were reversed scored, such that higher scores indicated higher standards (i.e., refusing to accept frequent negative behaviours from a partner). Cronbach’s alpha for this scale was .75.

**Romantic Relationship Commitment Standards.** A second scale developed by the author was used to assess relationship commitment standards - the frequency with which a romantic partner would have to perform positive behaviours for a woman to remain committed to a relationship. Participants again completed this scale in regards to their romantic partner (and again, if they were not currently in a relationship

were asked to complete the scale in reference to a future relationship). This scale consisted of a list of eight positive behaviours that could be exhibited by a romantic partner. These behaviours included *accepted me as I am, demonstrated that they cared for me (through actions, such as hugs, gifts, thinking about me), made me feel special or important, attempted to please and satisfy me, made me a priority, was able to cheer me up when I feel down, agreed with my values and morals and was able to be counted on when I need him/her*. For each of the eight behaviours, participants were asked to indicate the frequency with which the behaviour would have to occur for them to remain committed to the relationship. Namely, participants were asked to complete the phrase “I would remain committed to my relationship, if my partner...” and then to indicate on a scale ranging from 1 (*if this happened even once*) to 7 (*if this happened regularly*) how often the behaviour would have to occur for them to remain committed to the relationship. Higher scores indicated higher relationship standards, as higher scores mean that a greater number of positive behaviours must be performed by a partner in order for a woman to remain committed to a relationship. Cronbach’s alpha for this scale was .93.

**Romantic Relationship Status.** Participants were asked to indicate if they were currently involved in a romantic relationship, and if they were, to indicate the length of the relationship.

**General Relation Value Scale (GRVS).** Participants’ general perceived relational value within five relational contexts (friends, peers, family, important people and society) was assessed by the General Relational Value Scale, developed by the author. Participants completed each of the 15 items (3 per relational context) on a scale

ranging from *Strongly Disagree* (1) to *Strongly Agree* (7). Sample items from this scale include “*My friends make me feel unwanted*” and “*Society accepts me as I am*”.

Cronbach’s alpha for the complete scale was .87. Alphas for the subscales were as follows: Society: .88; Family: .83 and Important People: .86. Note that for analytical purposes, the Friend and Peer subscales were combined given that they were strongly correlated ( $r = .48, p < .001, N = 63$ ). The alpha for the combined subscale was .80.

**General Self-Esteem.** The Rosenberg Self-Esteem Scale (Rosenberg, 1965) measured participants’ overall self-esteem. This scale is comprised of 10 items, and sample items include “*On the whole, I am satisfied with myself*” and “*I certainly feel useless at times*”. Participants indicated their response on a scale ranging from 1 (*Strongly Disagree*) to 9 (*Strongly Agree*). Cronbach’s alpha for this scale was .93.

**Demographics.** Participants completed a demographics questionnaire pertaining to age, gender, major and ethnicity.

**Height and Weight.** Participants were asked to provide their best estimate of their height and weight.

## **Procedure**

Undergraduate students were recruited from a participant pool to participate in a study ostensibly investigating the attitudes and opinions of university students in a variety of domains. Students choosing to take part in the study were provided with a web link and logged onto to a website to complete the questionnaires (the online nature of study meant that participants could complete the study from a location of their choice). Upon consenting to participate, participants were randomly assigned to one of two conditions; the Appearance Threat condition or the Control condition. Participants

in the Appearance Threat condition were asked to list the parts of their body they did not like or were dissatisfied with, whereas participants assigned to the control condition were asked to list the items found in the room in which were completing the study (Park & Maner, 2009). Participants first completed the manipulation task, followed by the measures of interest. Upon completion of the questionnaires, participants read an online debriefing form and respond to three questions to ensure the debriefing was understood.

## Results

Given that relationship status (single versus involved in a romantic relationship) did not interact with condition on any of the variables of interest ( $F_s < 1.54, p_s > .20$ ), the following analyses are collapsed across relationship status. Self-esteem was included as a covariate in all analyses<sup>1</sup>.

**Manipulation Check: Condition Effect on Appearance Satisfaction.** I expected that participants in the Appearance Threat condition would report more dissatisfaction with their physical appearance than participants in the Control condition. Unexpectedly, the oneway ANOVA indicated a non-significant condition effect,  $F(1, 59) = .61, p = .44, (M_{threat} = 2.83, SD = 1.18, M_{control} = 3.00, SD = 1.23)$ .

### Hypothesis 1

**Main Effect of Condition on Perceived Relational Value.** The first goal of this study was to establish a causal effect of appearance self-appraisals on overall perceived relational value. I first conducted a oneway ANOVA to assess overall perceived relational value (i.e., an average of perceived relational value within all relational contexts) as a function of condition. Results indicated that participants in the

appearance threat condition reported lower overall perceived relational value ( $M = 5.81$ ,  $SD = .64$ ) than participants in the control condition ( $M = 6.20$ ,  $SD = .63$ ),  $F(1, 59) = 10.70$ ,  $p = .002$ , establishing a causal impact of appearance self-appraisals on overall perceived relational value.

Recall that I also expected that the effect of the appearance threat on perceived relational value would be stronger within less close/more superficial relationships (e.g., peer/friend, society), whereas a weaker or a null effect was expected for more close relationships (e.g., family, self-nominated significant others). To test this hypothesis, a multiple analysis of variance (MANOVA) was computed to assess condition differences in the four subtypes of perceived relational value. Condition was used as the independent variable and perceived relational value within friends/peers, family, important people and society were included as dependent variables. The Wilks Lambda multivariate test of overall differences among conditions was significant,  $\lambda = .79$ ,  $F(4, 56) = 3.72$ ,  $p = .009$  (partial eta squared = .21). As expected, the univariate between-subjects tests indicated significant condition effects for perceived peer/friend relational value,  $F(1,59) = 8.16$ ,  $p = .006$  and for perceived societal relational value,  $F(1,59) = 8.25$ ,  $p = .006$ . For both perceived peer/friend and societal relational value, participants in the appearance threat condition reported lower levels of perceived relational value (See Table 2 for means). As hypothesized, the univariate analyses for perceived familial and important people relational value produced non-significant condition effects,  $F(1,59) = .20$ ,  $p = .67$ ,  $F(1,59) = 1.55$ ,  $p = .22$ , respectively.

## Hypothesis 2

### *Main Effect of Condition on Relationship Standards*

#### *Romantic Relationship Dissolution Standards.* A oneway ANOVA

investigated the frequency with which a romantic partner could engage in negative behaviours before a woman would leave the relationship. Results indicated a significant condition effect,  $F(1, 59) = 4.19, p = .05$ , and revealed that participants in the appearance threat condition reported greater willingness to accept negative behaviours on a more regular basis before they would leave the relationship ( $M = 4.56, SD = 1.50$ ) than did participants in the control condition ( $M = 5.11, SD = 1.51$ ). Hence, women in the appearance threat condition were willing to accept more negative behaviours from their partner, supporting my hypothesis that participants in the threat condition would report lower relationship standards.

*Romantic Relationship Commitment Standards.* The extent to which participants reported that their partner would have to demonstrate positive behaviours for them to remain committed to the relationship was analyzed by a oneway ANOVA. Results indicated a significant effect of condition,  $F(1, 59) = 5.33, p = .02$ . Participants in the appearance threat condition reported that they would remain committed to a relationship in which their partner engaged relatively infrequently in positive behaviours ( $M = 4.72, SD = 1.99$ ), whereas participants in the control condition reported that their partner had to engage in positive behaviours more frequently for them to remain committed to the relationship ( $M = 5.56, SD = 2.06$ ). These findings further support my hypothesis that women who received a threat to their appearance would report lower relationship standards.

The above findings provide evidence that when appearance is threatened, a woman's relationships standards are adversely affected. When experiencing an appearance threat, women temporarily lowered their relationship standards and were willing to accept more frequent negative behaviours and fewer positive behaviour from their romantic partner. Whereas these above findings speak to the direct effect of an appearance threat on romantic relationship standards, I hypothesized that the mechanism by which this relationship emerges is through a process of lowered perceived relational value, such that experiencing an appearance threat leads to lower perceived relational value, which in turn, leads to lower relationship standards.

**Test of the Mediation Models.** Two mediation models were tested; one predicting relationship dissolution standards and one predicting relationship commitment standards (See Figures 1 and 2, respectively). It was hypothesized that condition would predict perceived relational value (i.e., participants in the threat condition would report lower perceived relational value), and in turn, perceived relational value would predict lower relationships standards. Notably, I recognize that the order in which the questionnaires were completed by participants is not consistent with the theoretical model. That is, participants completed the relationship standards measures prior to completing the perceived relational value measure. While this may seem conceptually problematic, this particular ordering was necessary. Past research has demonstrated that when feeling poorly about themselves, people sometimes use their relationships to affirm themselves (e.g., Murray, Holmes, MacDonald, & Ellsworth, 1998). Indeed, in one study, Park and Maner (2009) found that after experiencing an appearance threat, simply writing down the initials of a significant

other eliminated the negative impact of the appearance threat (in this case, the desire for social contact). Therefore, it was not possible to have participants complete the perceived relational value measure prior to the relationship standards measure, as they may have used the perceived relational value measure to affirm themselves when feeling poorly about their appearance. This may have counteracted the effects of the manipulation and would not have allowed for an examination the hypotheses.

Another limitation should be noted regarding the use of the General Relational Value Scale (GRVS) as a mediator. This scale, which has been previously used in a number of my past studies, was included in the current study, but it does not include specific questions pertaining to romantic relationships. The GRVS scale was initially developed to include general relationships that almost everyone has, hence romantic relationships were not included since many people do not have a specific romantic partner. In retrospect, an ideal mediator for the relationship standards scale would be *romantic relationship* relational value, but this was not measured. However, I reasoned that because romantic relationships (especially those among young adults) are likely to be contingent on physical appearance, they would be more closely tied to relational value for peers/friends and society. Hence, I used a composite of these two scores as the mediator. However, I tested the mediation models keeping in mind that the mediator may not be ideal. The mediation analyses were conducted according to the steps outlined by Baron and Kenny (1986).

***Relationship Dissolution Mediation Model.*** The mediation model predicting dissolution standards was tested first. An initial linear regression analysis was conducted using condition as the independent variable and relationship dissolution

standards as the dependent variable (see Figure 1). This initial linear regression indicated that condition was a significant predictor of relationship dissolution standards,  $t(60) = 4.24, p = .04$  ( $\beta = .26$ ), such that participants in the Appearance Threat condition reported lower relationship standards. A second linear regression revealed that condition was also a significant predictor of perceived relational value,  $t(60) = 3.93, p < .001$  ( $\beta = .45$ ). A final linear regression predicting relationship standards from perceived relational value while controlling for condition revealed that perceived relational value was not a significant predictor of relationship dissolution standards,  $t(60) = .45, p = .65$  ( $\beta = .06$ ). Overall, this first mediation analysis revealed that perceived relational value did not mediate the relation between the appearance threat and relationship standards.

***Relationship Commitment Mediation Model.*** A second mediation model was tested to investigate the role of perceived relational value in the relation between the appearance threat and relationship commitment standards. An initial linear regression analysis was conducted using condition as the independent variable and relationship commitment standards as the dependent variable (see Figure 2). This initial linear regression indicated that condition was a significant predictor of relationship commitment standards,  $t(60) = 2.33, p = .02$  ( $\beta = .29$ ), with participants in the control condition indicating that their partner would have to engage in positive behaviours more regularly for them to remain committed to the relationship. The second linear regression revealed that condition was also a significant predictor of perceived relational value,  $t(60) = 3.93, p < .001$  ( $\beta = .45$ ). A final linear regression predicting relationship standards from perceived relational value and controlling for condition

revealed that perceived relational value was not a significant predictor of relationship commitment,  $t(59) = 1.61$   $p = .11$  ( $\beta = .22$ ).

## Discussion

Providing supporting evidence for Study 1, I found a causal impact of the manipulation on perceived relational value: Women felt less accepted and valued by others when they had described the negative aspects of their body. Breaking down the relational value scale into different relationship types, I found that the appearance threat affected perceived relational value ratings within less close, more superficial relational contexts (i.e., friends/peer and society). After describing the negative aspects of their appearance, women reported feeling less valued, loved and accepted by their friends and peers and within society in general. As expected, the manipulation did not lead to relational insecurities within more close relationships with family members and relationships with self-nominated significant others. These findings suggest that people's feelings of worth in their closest relationships may be less susceptible to the momentary fluctuations of appearance self-appraisals, at least in this context.

However, I am cautious not to suggest that close relationships are *always* immune to appearance concerns. For example, past research has revealed that some mothers may indirectly communicate to their daughters that acceptance is appearance contingent and model poor eating habits (Thompson, 1999). Moreover, Crandall (1991; 1995) reported that some overweight women experience discrimination by their parents, such that parents of overweight women were less likely to pay for their college/university education than were parents of lean women (even when controlling for parental income). While the current study does not allow for a test of the variation in perceived

relational value within particular familial relationships, future research may address this issue.

My findings further indicated the relational consequences of an appearance threat. Within romantic relationships, severe consequences may occur when experiencing a threat to physical appearance; when women described parts of their body they were dissatisfied with, they reported both lower relationship dissolution and commitment standards. These findings are consistent with minimal past research examining physical appearance and relationship standards, which revealed that women who were more physically attractive reported higher relationship standards (e.g., Buss & Shackelford, 2008; Walster et al., 1966; Waynforth & Dunbar, 1995). However, this study is the first to empirically test the causal impact of *self-appraisals* of physical appearance on relationships standards. These findings are very concerning, as they indicate that when women are threatened about their physical appearance, they are willing to endure poorer treatment from a romantic partner. These findings are somewhat parallel to Crocker et al.'s (1993) findings in which overweight women reported that a male confederate rejected them based on their weight, but did not think he was being prejudice or was to blame. Hence, women feeling unsatisfied with their appearance might believe that poor treatment from their romantic partners is justified.

Given that women are frequently bombarded with threatening images depicting young, attractive, and impossibly-thin models and actresses (Buote et al., in preparation), these findings suggest that many, many women – even those who may be viewed as highly attractive by others - may be at risk for poor treatment within their romantic relationships. The omnipresent nature of threatening images within society

may suggest that women might be under chronic appearance threat, which may lead them to accept consistently low-quality, substandard relationships or, overtime, to accept more severe negative behaviours (e.g., physical or emotional abuse) from their romantic partner. Of course, patterns of domestic abuse are more complex than can be accounted for with a single variable. Nonetheless, while past research has revealed that more attractive people are treated better (Boyatzis et al., 1998; Horai et al., 1974; Kleck et al., 1974), my research demonstrates that self-appraisals are also a determinant of the way women allow others to treat them and what they are willing to endure.

Perceived relational value (for friends/peers and society) was not found to mediate the relation between the appearance threat (i.e., condition) and dissolution standards or commitment standards. As suggested, the type of perceived relational value used as the mediator was likely not the most conceptually appropriate, given that a romantic relationship is a specific and unique type of close relationship. Hence, in Study 3, I included a subscale assessing perceived relational value within a romantic relationship, which will allow for a more conceptually appropriate mediation model. A second consideration regarding the mediation models concerns the ordering in which the questionnaires were completed by participants. As described above, the perceived relational value measure was completed after the relationship standards measures. This does present an issue for mediation analysis, however, given the nature of the measure and the opportunity for self-affirmation had the perceived relational value measure been completed directly after the manipulation, it was necessary for this measure to be completed after the relationship standards measures.

An unexpected finding was the null effect of condition on self-appraisals of physical appearance. One explanation may be that the manipulation might not have been strong enough to produce a strong effect on explicit ratings of appearance. On close examination, I found that some participants listed more “superficial” concerns about their appearance (e.g., feet, ears) which may not have been very threatening. While I cannot confirm that dissatisfaction with these types of body parts is linked to less negative emotion than that experienced by women who listed more stigmatized body issues, such as weight or body shape, it is possible that this is the case. In future studies, asking women to write a detailed description of the parts of their body they are dissatisfied with might cause greater discontent, resulting in a stronger manipulation. Nonetheless, the expected condition effects did emerge on perceived relational value and relationship standards. It may be that on the surface (explicitly) women did not feel any worse about their physical appearance but implicitly, the manipulation did cause insecurities about appearance which led to decreases in perceived relational value and relationship standards. It is also possible that the effects on perceived relational value and relationship standards emerged as a function of an appearance focus, rather than appearance criticism per se. It is possible that simply asking women to focus on appearance, rather than to engage in appearance self-criticism, may be threatening enough to lead to negative consequences.

In Study 3, I aimed to further explore the impact of an appearance threat on perceived relational value by expanding on and improving Study 2 in a number of ways.

### **Study 3: Settling for Less or Demanding More: Testing a Mediation Model of Relationship Standards**

Study 3 aimed to further explore the impact of an appearance threat on perceived relational value and improved on Study 2. First, Study 2 found a null effect of condition on appearance self-appraisals. Therefore, because the manipulation check for appearance was ineffective in Study 2, I cannot be certain that the appearance threat condition actually made women feel worse than they typically do about their appearance. I suggested that the manipulation (i.e., simply listing parts of the body they were dissatisfied with) may not have been adequately threatening; however, it is possible that the manipulation simply *focused* women on their appearance (rather than truly threatening them). An alternative explanation for Study 2's results then could be that any kind of appearance focus causes women to doubt their relational value and to lower their relationship standards. To explore this, in Study 3 I made the "appearance threat" condition more detailed to intensify its effect, and I included an "appearance boost" condition, designed to make participants feel very positive about their appearance. First, the use of a boost condition will help to determine whether the effects from Study 2 were a result of an appearance focus, or appearance self-criticism. In addition, by intensifying the threat condition and adding an equally intense boost condition, I hoped to increase the impact of these manipulations of appearance self-appraisals.

Finally, recall that in Study 2 participants were not asked about their perceived relational value from their romantic partners. Given that the types of perceived relational value measured in Study 2 were not conceptually ideal for a mediation

analyses testing romantic relationship standards, a subscale testing perceived relational value within a current romantic relationship was included in Study 3. With this new subscale, I hoped to show support for a meditation model, such that when women's appearance self-appraisals are threatened, women experience a decrease in perceived relational value within their romantic relationship, which, in turn, leads them to lower their relationship standards to promote perceived relational value. As mentioned earlier, although perceived relational value from close significant others (e.g., family members) may be relatively unaffected by appearance, a romantic relationship is a unique type of close relationship in which physical appearance plays a central role. For example, past research finds that people are initially attracted to one another because of physical appearance (Eastwick & Finkel, 2008; Kurzban & Weeden, 2005; Luo & Zhang, 2009). Given the importance of physical appearance in romantic relationships, I expected that a threat to self-appraisals of physical appearance would result in lowered perceived relational value within a romantic relationship.

## **Method**

**Participants.** Participants included 90 undergraduate female students. The mean age of the sample was 19.40 ( $SD = 1.31$ ). Average BMI was 22.69 ( $SD = 3.94$ ) which is in the normal range (Centers for Disease Control and Prevention, 2009). Half (51%) of the participants reported currently being in a romantic relationship (Mean relationship length = 15.49 months,  $SD = 11.32$  months).

## **Measures**

**Pre-Manipulation Measure of Self-Appraised Appearance.** Participants completed a five-item Self-Appraisals Scale developed by the author to assess

participants' perceptions of themselves in five domains, including physical attractiveness, academic success, social skills, extracurricular involvement and athleticism. Participants responded on a scale ranging from 1 (*Not at all [domain]*) to 7 (*Very [domain]*), with higher scores indicating more positive self-appraisals. An item from this scale is "On the following scale, please indicate how physically attractive you are." This scale was included primarily to obtain a pre-measure of self-appraised appearance. Controlling for baseline appearance ratings will allow a more sensitive test of fluctuations in appearance appraisals post-manipulation.

**Appearance Manipulation.** Similar to Park and Manor (2009), participants were asked to describe parts of their body, rather than simply listing parts of the body. Participants in the Appearance Threat condition completed the following question: "*We all have parts of our body or physical appearance that we are dissatisfied with or feel insecure about. Please take a moment to think about all of the aspects of your physical appearance/body/face that you feel most insecure about. These could be aspects of your appearance that you do not like or find unappealing, aspects that you try to hide, or aspects that are unpredictable and make you feel bad some of the time (e.g., bad hair days, pimples). In the space provided, please describe, in detail, the aspects of your physical appearance/body/face that make you feel most insecure or dissatisfied. Describe specifically what you don't like about each feature and how it makes you feel.*". Participants in the Appearance Boost condition completed the following question: "*We all have parts of our body or physical appearance that we are satisfied with or feel secure about. Please take a moment to think about all of the aspects of your physical appearance/body/face that you feel most secure about. These*

*could be aspects of your appearance that you like or find appealing, aspects that you are proud of and like to highlight, or aspects that you're very comfortable and content with. In the space provided, please describe, in detail, the aspects of your physical appearance/body/face that make you feel most secure or satisfied. Describe specifically what you like about each feature and how it makes you feel.”* As in Study 2, participants in the control condition were asked to list the items found within the room; *“If you look around, there are many objects in the room you are in. Please take a moment to think about all the objects you see in the room and list them in the spaces below.”* (Park & Manor, 2009, p. 206).

**Post-Manipulation Measure of Self-Appraised Appearance.** Post-manipulation self-appraised physical appearance was measured using the item *“I feel unattractive”* (reverse scored), embedded in a scale with other self-perception items. Participants indicated their level of agreement with this item on a scale from 1 (*not at all*) to 5 (*extremely*).

**Romantic Relationship Dissolution Standards.** Participants completed a similar scale used in Study 2 to assess relationship dissolution standards. A review of past literature regarding relationships standards was conducted, and past research (e.g., Vangelisti & Daly, 1997) was used as inspiration for a more exhaustive list of behaviours. This version of the scale contained a more comprehensive list of negative behaviours (20) a partner could engage in. As in Study 2, participants completed this scale in regards to their romantic partner (and if participants did not have a romantic partner, they were asked to complete it in reference to a future relationship). Sample behaviours from this scale include *pressured me into an unwanted sexual act, picked a*

*fight with me, broke a promise he/she made to me, not being honest, cheated on me with another person, flirted with another person, yelling, insulted me/put me down.* For each behaviour, participants were asked to indicate the frequency with which the behaviour would have to occur for them to leave their partner. As in Study 2, participants were asked to complete the phrase “I would leave this relationship if my partner...” with each item (e.g., I would leave this relationship if my partner cheated on me with another person) and then to indicate on a scale ranging from 1 (*if this happened even once*) to 7 (*if this happened regularly*) how often this behaviour would have to occur within the relationship for them to leave the relationship. All items were reverse scored such that higher scores indicated higher relationship standards. Cronbach’s alpha for this scale was .91.

**Romantic Relationship Commitment Standards.** Participants completed a similar, but more comprehensive, commitment standards scale to the scale used in Study 2. Participants again completed this scale in regards to their romantic partner (and again, if they did not currently have a relationship to complete the scale in reference to a future relationship). The scale consisted of a list of 13 positive behaviours that could be exhibited by a romantic partner (again, past research was an inspiration for a more exhaustive list of behaviours). Sample items from this scale include *supported me in my endeavours, complimented me, agreed with my values and morals, accepted me as I am, demonstrated that they cared for me (through actions, such as hugs, gifts, thinking about me), made me feel special or important, attempted to please and satisfy me, made me a priority*, etc. As in study 2, Participants were asked to complete the phrase “I would remain committed to my relationship, if my

partner...” and then to indicate on a scale ranging from 1 (*if this happened even once*) to 7 (*if this happened regularly*) how often the behaviour would have to occur for them to remain committed to the relationship. Higher scores indicated higher relationship standards. Cronbach’s alpha for this scale was .96.

The dissolution and commitment scales were very highly correlated and appeared to be measuring the same question (i.e., *leaving* versus *staying* choices as two ends of a continuum). Therefore, a composite score of relationship standards was computed by averaging participants’ scores on the Romantic Relationship Dissolution Scale (using reversed items so that higher scores indicated higher standards) and the Romantic Relationship Commitment Standards Scale. These two scales were significantly correlated,  $r = .68$ ,  $p < .001$ ,  $N = 90$  (Cronbach’s alpha = .92).

**Romantic Relationship Status.** Participants were asked to indicate if they were currently involved in a romantic relationship, and if so, to indicate the length of the relationship.

**General Relation Value Scale (GRVS).** Participants’ general perceived relational value within six relational contexts (friends, peers, family, romantic partner, important people and society) was assessed by a shortened version of the General Relational Value Scale containing one item per relationship context. If participants did not have a romantic partner, they did not complete the romantic relationship subscale. Participants completed each of the 6 items on a scale ranging from *Strongly Disagree* (1) to *Strongly Agree* (7). Sample items from this scale include “*My romantic partner accepts me as I am*” and “*Society accepts me as I am*”. Again, it is important to note that the ordering of the questionnaires was not ideal for the proposed mediation model

(i.e., this scale was completed after the dependent variables of interest), however, given that past research has indicated that people sometimes use their relationship to affirm themselves when they feel poorly about themselves (e.g., Murray et al., 1998) and that simply thinking of a significant other can sometimes reduce the impact of an appearance threat (Park & Manor, 2009), it was necessary for this scale to be completed after the dependent variables.

**General Self-Esteem.** The Rosenberg Self-Esteem Scale (Rosenberg, 1965) measured participants' overall self-esteem. This scale is comprised of 10 items, and sample items include "*On the whole, I am satisfied with myself*" and "*I certainly feel useless at times*". Participants indicated their response on a scale ranging from 1 (*Strongly Disagree*) to 9 (*Strongly Agree*). Cronbach's alpha for this scale was .92.

**Demographics.** Participants completed a demographics questionnaire regarding age, gender, major, ethnicity and sexual orientation.

**Height and Weight.** Participants were asked to provide their best estimate of their height and weight.

### **Procedure**

Participants signed up to complete an online study ostensibly examining students' attitudes and opinions about issues relevant to young adults. All questionnaires were completed online. Participants first completed the pre-manipulation measure of self-appraised physical appearance, followed by the manipulation. After the manipulation was completed, the post-manipulation self-appraised measure of physical appearance was completed followed by all other

questionnaires. Upon completion of the study, participants read an online debriefing form and confirmed they understood the debriefing form.

## Results

In all analyses, self-esteem was included as a covariate<sup>2</sup>.

**Condition Effect on Post-Manipulation Self-Appraised Appearance.** To assess self-appraised physical appearance as a function of condition, an ANOVA controlling for pre-manipulation self-appraised appearance ratings and self-esteem was conducted. Results indicated a significant main effect of condition,  $F(2, 85) = 4.68, p = .01$ . Planned contrasts controlling for pre-manipulation self-appraised attractiveness and self-esteem indicated that women in the Appearance Threat condition reported significantly less favourable self-appraisals of physical appearance ( $M = 3.47, SD = 1.31$ ) than did women in the Control condition, ( $M = 3.70, SD = 1.12$ ),  $t(87) = -2.69, p = .01$ . Moreover, women in the Threat condition reported significantly less favourable appearance self-appraisals than women in the Boost condition ( $M = 3.87, SD = .97$ ),  $t(87) = -2.61, p = .01$ . Given that the Control and the Boost condition did not differ,  $t(87) = -.08, p = .94$ , a final contrast comparing the Threat versus a combined Boost and Control condition indicated that women in the Appearance Threat condition reported less favourable self-appraisals,  $t(87) = -3.07, p = .003$ .<sup>3</sup>

**Condition Effect on Relational Value Within a Romantic Relationship.** The condition effect on perceived relational value within a romantic relationship was tested via a oneway ANOVA. Given that only women who reported being currently involved in a romantic relationship completed this scale, only these women were included in this analysis. A significant condition effect emerged,  $F(2,43) = 3.33, p = .05$ . Planned

contrasts revealed that women in the Appearance Threat condition reported significantly lower perceived relational value ( $M = 5.92, SD = 1.56$ ) than women in the Control condition ( $M = 6.55, SD = 1.00$ ),  $t(44) = -2.54, p = .02$ . Given that the Boost and the Control condition were not significantly different,  $t(44) = -.62, p = .54$ , a comparison testing the Appearance Threat condition against a combined Boost and Control condition revealed that women in the Appearance Threat condition reported lower perceived relational value than women in the combined Boost and Control condition,  $t(44) = -2.45, p = .02$ .

**Condition Effect on Relationship Standards.** To assess relationship standards as a function of condition, an ANOVA was computed using only women who reported currently being in a romantic relationship. Results indicated a significant effect of condition,  $F(2, 43) = 9.07, p < .001$ . Planned comparisons were computed to further explore the condition effect, and revealed that women in the Threat condition ( $M = 4.02, SD = 1.16$ ) reported significantly lower standards than women in the Control condition ( $M = 4.76, SD = .86$ ),  $t(44) = -2.99, p = .005$ . Moreover, women in the Threat condition reported significantly lower standards than women in the Boost Condition ( $M = 5.22, SD = .63$ ),  $t(44) = -4.11, p < .001$ . Given that the Boost and the Control condition did not differ significantly ( $t(44) = 1.47, p = .15$ ), one final contrast comparing the Threat versus a combined Boost and Control condition was significant, and revealed that women in the Threat condition reported significantly lower standards than women in the other two conditions,  $t(44) = -4.01, p < .001$ .

**Test of the Mediation Model.** I hypothesized that perceived relational value within a romantic relationship would mediate the relation between condition and

relationship standards, such that when women felt poorly about their physical appearance, they would report lower perceived relational value, which, in turn, would predict lowered standards in their romantic relationship.

To test this hypothesis, I conducted a mediation analysis according to the steps outlined by Baron and Kenny (1986). Given that the comparison between the Control condition and the Boost condition on relationship standards did not meet the criteria for mediation analysis, in that there was no significant differences between the conditions ( $t(87) = .54, p = .59$ ), this comparison was not tested in the mediation analysis. While the Boost and the Appearance Threat condition differed in reports of relationship standards ( $t(87) = 2.96, p = .004$ ), I was mainly interested in the comparison between the Control and the Appearance Threat condition because the Control condition represented a more baseline level of relationship standards. Hence, only the comparison between the Control and the Appearance Threat conditions was tested in the mediation analysis (see Figure 3).

I first conducted a linear regression analysis using condition (control condition coded as 0, threat condition coded as 1) as the independent variable and relationship standards as the dependent variable. Consistent with earlier analyses of the main effects, this regression analysis revealed that participants in the Appearance Threat condition reported lower relationship standards (i.e., were willing to accept more negative behaviours and fewer positive behaviours from their partner) than participants in the Control condition,  $t(28) = -3.06, p = .005$  ( $\beta = -.46$ ). A second linear regression analysis revealed that condition was a significant predictor of perceived relational value,  $t(29) = -2.26, p = .03$  ( $\beta = -.35$ ), with participants in the Appearance Threat

condition reporting lower perceived relational value. A final linear regression predicting relationship standards from perceived relational value while controlling for condition revealed that perceived relational value was a significant predictor of relationship standards,  $t(28) = 2.32$   $p = .03$  ( $\beta = .39$ ). Moreover, when perceived relational value was entered into the model, the effect of condition became less significant,  $t(28) = -2.13$ ,  $p = .04$  ( $\beta = -.32$ ), suggesting partial mediation. The mediation model was followed by a Sobel test,  $Z = 1.85$ ,  $p = .06$ , revealing a marginally significant mediation pattern.

To summarize, when women experienced an appearance threat and were induced to feel poorly about their physical appearance, they reported feeling less accepted within their romantic relationship. In turn, these women were willing to accept more negative and harmful behaviours and fewer positive behaviours from their partner, presumably to reduce the chance of abandonment.

## **Discussion**

Overall, results from study 3 confirmed my hypotheses and provided further support for the suggestion that severe relational consequences can result from unfavourable appearance self-appraisals among women. Women induced to feel poorly about their physical appearance reported more unfavourable appearance self-appraisals, suggesting that the manipulation was effective. In addition, women induced to feel poorly about their physical appearance reported lower relationships standards, consistent with past research (e.g., Buss & Shackelford, 2008; Walster et al., 1966; Waynforth & Dunbar, 1995) and replicating Study 2.

This study improved on Study 2 by including a more conceptually appropriate mediator: perceived relational value within a romantic relationship. As expected, perceived relational value within women's romantic relationship mediated the relation between appearance self-appraisals and romantic relationship standards, such that unfavourable physical appearance self-appraisals led to lower perceived relational value, which in turn, led to lower relationship standards. I contend that the reason women decrease their relationship standards is a result of a strong motivation to avoid rejection. Moreover, these findings are consistent with the few studies examining concepts related to perceived relational value and the link between these concepts and relationship standards (e.g., Regan, 1998). However, this study is the first to test the causal links, and to empirically examine a mediation model delineating how these three variables (i.e., self-appraisals of physical appearance, perceived relational value and relationship standards) are related.

I have suggested that women lowered their relationship standards to avoid rejection from their partner, and a further decrease in perceived relational value. Consistent with this argument, evolutionary and social exchange theorists (e.g., Baumeister & Leary, 1995; Zeigler-Hill et al., 2009) propose that people seek the partners they believe they can attract based on their qualities and what they have to offer. Thus, people who believe they possess many desirable qualities (e.g., physical attractiveness, financial security, positive personality) seek more desirable partners, and therefore have higher standards. On the other hand, those who feel they have nothing to offer, such as women feeling unattractive and of lesser social worth, will seek a partner with fewer assets. Zeigler-Hill and colleagues (2009) also suggest that

self-appraisals play a focal role in seeking a relational partner, as it is self-appraisals that will set the bar for potential mates. Hence, when women feel that their physical appearance is unfavourable and that they are less accepted, valued and loved, they may feel as though they have little to offer to a potential partner. In turn, they may accept a partner who can offer them little in return.

Although lowered relationship standards may help to allay women's fears of immediate rejection, it is unlikely to be a good long-term solution, as negative partner behaviour is likely to result in relationship dissatisfaction over time (Huston & Vangelisti, 1991). The implications of these findings are extremely significant because they suggest that chronically unfavourable self-appraisals of appearance may lead to chronic feelings of low acceptance and value, which in turn may lead women to remain in a relationship in which they are treated poorly. These findings may help to explain why some women repeatedly become involved in substandard, poor-quality and unsatisfactory relationships. Moreover, it is possible that chronically poor appearance self-appraisals and the resulting low perceived relational value may lead women to, over time, accept increasingly severe negative behaviours (e.g., physical or emotional abuse) from their partner. Indeed, past research has suggested that some men may even use insults (about physical appearance as well as other attributes) as a strategy to prevent their partners from leaving the relationship: in light of the current findings, these insults may function to keep women's standards low enough to continue to accept their sub-standard partner, resulting in a cycle of mistreatment (McKibbin, Goetz, Shackelford, Schipper, Starratt & Stewart-Williams, 2007).

Notably, the differences in self-appraisals of appearance, perceived relational value and relationship standards emerged as a function of the Appearance Threat and the Control conditions; the Boost condition and the Control conditions did not differ significantly. Findings for the Boost condition point to two conclusions: First, it appears that simply focusing women on any aspect of their appearance does not lead to the same outcomes as self-criticism; rather, the act of engaging in appearance self-criticism may be the primary cause. However, it is also notable that the Boost condition did not lead to a significant reversal (higher relational value or standards). It is plausible that the emotions elicited by the Boost condition reminded women of the contingent nature of their acceptance. The experimental induction may have led women to feel positively about their appearance but, at the same time, may also have increased awareness of the fact that while feeling temporarily positive about their appearance would temporarily promote acceptance, when they began to feel poorly about their physical appearance, acceptance could suffer. Therefore, the Boost condition may have actually increased the saliency of the fact that acceptance is contingent on appearance, which may have counteracted the expected effects.

Studies 2 and 3 provided evidence of one type of relational consequence that may result from lowered perceived relation value: lowered romantic relationship standards. In Study 4, I sought to further examine the relational consequences of lowered perceived relational value by focusing on a second consequence – a reduced desire for risky social contact.

**Study 4: To Seek or to Avoid? How An Appearance Threat Impacts Desire  
for Social Contact**

Studies 2 and 3 examined the motivation to protect perceived relational value by lowering relationship standards, which may decrease the likelihood of abandonment by one's partner. However, it is also possible that, rather than (or in addition to) seeking to secure their romantic partner's continued acceptance, people may be motivated to take measures to ensure that their perceived relational value does not drop any further (Smart Richman & Leary, 2009). For example, at a party Paula may notice that the person with whom she is talking appears very uninterested in the conversation, and makes a silly excuse to leave the interaction. Paula may then feel unimportant, rejected and have low perceived relational value. Rather than try to interact with another person who could help Paula to restore her perceived relational value, Paula might simply decide to leave the party and go home, in order to avoid further rejection and potential decrease in perceived relational value. This may be particularly true if Paula believes that whatever factor led to the initial rejection is still relevant to subsequent interactions, for example, if Paula believed that the rejection was due to her appearance. Hence, rather than trying to restore perceived relational value by interacting with another person, which could lead to a further decrease in perceived relational value, Paula may minimize the potential for further harm by avoiding any social contact with others.

I suggest then, that when a person feels that their perceived relational value is vulnerable or that their relational value has decreased, a conflict takes place within the person. On one hand, an individual might be strongly motivated to seek reassurance of

their perceived relational value (Leary, 2001; Maner et al., 2007; Smart Richman & Leary, 2009). On the other hand, seeking out reassurance from another individual, especially an unknown individual, allows for the potential of further rejection and decrease in perceived relational value. Given that rejection might heighten anticipation of further rejection, it is possible then that people who feel their perceived relational value is vulnerable might want to avoid any social interaction with a potential for further rejection.

Past theoretical arguments have suggested that one outcome of lowered perceived relational value is the avoidance of social contact and interactions with others (Smart Richman & Leary, 2009). Indeed, past research has shown that when rejected, people do not want to interact with the person who rejected them (Maner et al., 2007), and may even seek to retaliate or harm the rejecter (Twenge Baumeister, Tice & Stucke, 2001). Research by Park and colleagues (e.g., Park & Maner, 2009; Park & Pinkus, 2009) found that suffering an appearance threat resulted in decreased desire for social contact, but that these effects were moderated by individual difference variables. For example, Park & Pinkus (2009) reported that, following an appearance threat, people high in appearance rejection sensitivity (i.e., the belief that an individual will be rejected based on appearance) reported a lower desire to engage in social contact with both close and non-close others. Using a diary-study technique, Park and Pinkus (2009) found that among participants with high appearance rejection sensitivity, on days where participants reported feeling concerned about being rejected based on their appearance, they avoided social contact with others. Along a similar vein, Park and Maner (2009) reported that following an appearance threat, participants

low in general self-esteem, and who based their self-worth on their physical appearance, avoided social interaction. In contrast, participants with high self-esteem who based their self-worth on appearance reported increased desire to seek out close others. Given that self-esteem has been argued to act as a barometer for social acceptance (Leary & Baumeister, 2000) this study suggests that following a threat to appearance, people reporting low perceived relational value might cope by avoiding interactions with others.

Extrapolating from these theoretical arguments and empirical findings, I suggest that when individuals experience an appearance threat, and as a result, feel poorly about their physical appearance, they will subsequently experience a decrease in perceived relational value. Given that their perceived relational value is vulnerable, they may want to ensure that it does not decrease any further. To protect their vulnerable perceived relational value, I hypothesized that threatened participants would avoid social situations (e.g., meeting new people) that have the potential to further harm perceived relational value and be motivated to be alone. At the same time however, participants may be motivated to secure their perceived relational value, as revealed in Studies 2 and 3. One way to do this may be to seek out a close other, such as a family member. However, keeping in mind that the appearance threat is currently salient, it is also possible that people may not want to seek someone out in a face-to-face situation because they may feel insecure about their physical appearance and fear they may be negatively evaluated. Therefore, competing hypotheses exist regarding face-to-face social contact with close others; it is possible that a person is motivated to seek out close others, but it is also possible that participants are motivated to avoid

these individuals. Along a similar vein, again keeping in mind the salient appearance threat, and that people would feel insecure about their physical appearance, it is possible that people may want to seek out another person using means by which they cannot be seen. For example, people might be motivated to contact a friend using electronic contact (e.g., through MSN or Facebook) as this method would allow them to secure their relational value, but remain “invisible”.

To summarize, I hypothesized that participants who received a threat to their appearance would report less favourable appearance self-appraisals, which would lead to lower perceived relational value. In turn, I hypothesized that participants would report a lower desire to engage in “risky” social situations (e.g., that have the potential for further rejection), such as meeting new people. Along a similar vein, I expected that threatened participants would have an increased desire to be completely alone, again stemming from the motivation to avoid a further decrease in perceived relational value. Notably, I hypothesized that the desire to avoid a further decrease in perceived relational value would be manifested in the desire to be *completely secluded and alone*. That is, I hypothesized that participants’ would not particularly desire to engage in solo, but public, activities (e.g., go for a walk), rather, the stronger motive would be to seclude oneself completely and to remain very isolated (e.g., to “hide”).

At the same time participants are motivated to avoid social contact, they may also be motivated to restore their perceived relational value by connecting with another person. Given the competing hypotheses regarding face-to-face contact with a known individual (e.g., participants might report an increased or a decreased desire), no particular hypotheses regarding this dependent variable were made. I hypothesized,

however, that participants with low perceived relational value may report an increased desire to seek out a friend through electronic means, as these methods would provide insurance that an individual cannot be seen.

In the current study, I sought to replicate and extend my earlier studies by using a different appearance threat which has been used successfully in many past studies: exposure to images depicting the ideal body. Moreover, because the selected manipulation has been shown to affect the appearance satisfaction of both genders about equally, participants for this study included both women and men.

Why include men in this study? While “real life” (non-experimental) studies reveal that men are more satisfied with their bodies than are women (e.g., Pliner et al., 1990), past research has found that experimental exposure to idealized images presents a severe threat to body satisfaction among both men and women (e.g., Blond, 2008; Buote et al., in preparation; Grabe, Ward, & Hyde, 2008). Indeed, meta-analyses reviewing the effects of exposure to idealized images on body satisfaction reveal that the damaging effects occur among both men and women (e.g., Blonde, 2008; Grabe et al., 2008).

In other work (Buote et al., in preparation), I have argued that the inconsistent findings between “real-life” and in-lab studies are a function of the norms that men are presented with on a daily basis. That is, in their everyday life, men are exposed to images depicting a variety of male body types and appearance. However, in experimental studies exposing men to the idealized appearance, men are bombarded with one, *and only one*, strong, consistent and threatening idealized appearance norm – a young, muscular and attractive man.

I suggest then that, as past research has found, when men are experimentally exposed to one consistent idealized appearance norm, they do engage in self-criticism and feel poorly about their physical appearance. Moreover, I suggest that when men are repeatedly exposed to images depicting a single ideal appearance, the link between a particular physical appearance and social acceptance becomes especially salient. Given that men are accustomed to seeing images depicting a variety of body types and appearances, repeated exposure to a single idealized appearance should temporarily emphasize that the ideal appearance is the primarily acceptable appearance type. Hence, when exposed to idealized images, men should come to associate physical appearance and social acceptance, as do women, and as such, experience the same negative outcomes as do women. In short, what women experience *in the lab* when exposed to idealized images reflecting sociocultural norms is far more similar to what they experience in daily life than it is for men (Buote et al., in preparation), but making these norms salient in the lab should affect both genders in a similar way.

## **Method**

**Participants.** Participants were 157 undergraduate students (76 male, 81 female) recruited from two university campuses of a mid-sized Canadian university in Southern Ontario. The mean age of the sample was 18.97 ( $SD = 1.55$ ). Average BMI was 22.93 ( $SD = 3.12$ ), which is in the normal range (Centers for Disease Control and Prevention, 2009).

## **Measures**

**Appearance Satisfaction.** Appearance satisfaction was measured by the appearance subscale (4 items) of the Current Thoughts Scale (Heatherton & Polivy, 1991). A

sample item from this scale includes “*I am pleased with my appearance right now*”. Participants indicate their level of agreement with each item on a scale from 1 (*not at all*) to 5 (*extremely*). Cronbachs’ alpha was .82.

**Self-Appraised Physical Appearance.** Participants completed a 7-item scale developed by the author to assess self-appraisals in seven domains, including physical attractiveness, academic success, social skills, extracurricular involvement, athleticism, personality and weight. Participants responded on a scale ranging from 1 (*Not at all [domain]*) to 7 (*Very [domain]*), with higher scores indicating more positive self-appraisals. A sample item from this scale is “*On the following scale, please indicate how physically attractive you are.*”

**General Relation Value Scale (GRVS).** Participants’ perceived relational value within five contexts (friends, peers, family, important people and society) was assessed by the General Relational Value Scale. Participants completed each of the 15 items (3 per relational context) on a scale ranging from 1 (*Strongly Disagree*) to 7 (*Strongly Agree*). Sample items from this scale include “*My friends sometimes make me feel unwanted*” and “*Society accepts me exactly as I am*”. Cronbach’s alpha for the complete scale was .85 and were as follows for the subscales: Society: .81, Family: .75, and Important people: .66. Note that for analytical purposes, as in Study 1 and 2, the friend and peer subscale were combined ( $r = .48, p < .001, N = 157$ ). The alpha for the peer/friend subscale was .78.

**Activity Choice Scale.** Participants completed a scale comprised of a list of 13 social and non-social activities designed to assess their desire to engage in social and non-social activities. Participants indicated how much they would like to engage in

each activity “*at this very moment*” on a scale ranging from 1 (*I would not at all like to do this activity right now*) to 7 (*I would absolutely like to do this activity right now*). Examples of the activities included in this scale are *Spend time by myself*, *Meet new people*, and *Go see a family member*. Based on this scale, 5 scores were created (which acted as dependent variables). The first three variables reflect a motivation to avoid social interaction in order to reduce the potential for a further decrease in perceived relational value. The first variable, *Risky Social Situation* (comprised of 1 item: meet new people), assessed desire to engage in social situations with the potential for further rejection. The second variable, *Secluded Alone Activities* (comprised of 5 items: spend time by myself, read a book, sleep, watch tv/movie alone and surf the internet/play on the computer alone), measured the desire to engage in completely secluded and alone activities. The third variable, *Alone Public Activities* (comprised of 3 items: go for a bike ride by myself, spend time on my own doing my favourite hobby and go for a walk/hike by myself), assessed the desire to engage in solo activities in which other people may be in close proximity, but no interaction takes place. The last two variables reflect a motivation to restore perceived relational value by seeking out an individual with whom the participant has a close relationship. The fourth variable, *Face-to-face Contact with Known Other* (comprised of 3 items: meet up with my best friend, go for coffee/out to eat with friends and go see a family member), assessed the desire to seek out a close other in a face-to-face context. Last, the fifth variable, *Contact with a Friend via Electronic Means* (comprised of 1 item: talk to my friends using electronic means), assessed desire for contact with a close other via electronic

contact. Cronbach's alphas are as follows: Secluded Alone Activities: .64, Alone Public Activities: .59 and Face-to-face with a Known Other: .63.

**Expectation of Acceptance from Others.** While the General Relational Value Scale assessed perceived relational value within particular relationships contexts, I also wanted to assess people's perception of the extent to which groups of people more closely related to the social activities found within the Activity Choice Scale would be accepting. Participants completed an 8-item scale developed by the author. Participants were given a list of 8 relationships and/or situations involving interactions with other people, such as a classmate, a best friend, and a first date. For each item, participants were asked to indicate how accepting they felt each person (or group) was towards them *right now*. If participants did not currently have one of the relationships included in the list, they were instructed to base their response on how much they thought that person would be accepting of them, if they did have that relationship. Participants indicated their response on a scale ranging from 1 (*Not At All Accepting*) to 7 (*Extremely Accepting*). Cronbach's alpha for this scale was .73.

**Demographics.** Participants completed a demographics form with questions pertaining to age, gender, major and ethnicity.

**Height and Weight.** Participants were asked to provide their best estimate of their height and weight.

### **Procedure**

Students were recruited from two campuses of a mid-sized Canadian university to participate in a study ostensibly investigating memory for advertisements. Upon arriving at the lab, participants were randomly assigned to one of two conditions; the

Idealized images condition or the Control condition (conditions described below).

Participants were told that they would be asked to view a variety of advertisements and to subsequently complete a memory test about the advertisements. Participants were given a booklet containing 9 advertisements and were given as much time as desired to peruse them. In the Idealized images condition, participants were given a booklet containing 6 advertisements depicting the idealized men (young, attractive, muscular) or women (young, attractive, thin) (e.g., ads for clothing, undergarments) and three neutral filler ads (e.g., cell phone, cat litter). Note that participants received booklets portraying idealized people of the same sex as themselves (i.e., women received images of idealized women, and men received images of idealized men). Participants in the Control condition were given a booklet containing six control advertisements (e.g., household products, automobiles) and the same three neutral filler advertisements as in the Idealized images condition. Once the participant felt they had sufficiently viewed the ads, they were told that to allow time between the viewing of the ads and the memory test, they would be asked to complete a questionnaire booklet for an ostensibly unrelated study, which actually contained the measures of interest. Upon completion of the questionnaires, participants were debriefed, thanked and dismissed.

## **Results<sup>4</sup>**

I expected that men and women would be similarly affected by the manipulation. Prior to conducting analyses, analyses to rule out gender differences in all dependent variables of interest were conducted. Results revealed that overall similar patterns emerged for men and women, thus gender will not be discussed further (any specific gender effects will be noted where appropriate).

**Manipulation Check: Condition Effect on Self-Appraised Appearance.** To

investigate self-appraisals of physical appearance, a composite score of appearance self-appraisal was first created by standardizing participants' scores on the appearance subscale of the Current Thoughts Scale (Heatherton & Polivy, 1991) and the one item self-appraised attractiveness measure. These scores were then combined ( $r = .52, p = .001, N = 157$ ). A oneway ANOVA testing the standardized appearance self-appraisals as a function of condition revealed a significant effect of condition,  $F(1, 154) = 4.99, p = .03$ , with participants in the Appearance Threat condition reporting less favorable appearance self-appraisals ( $M = -.12, SD = .87$ ) than participants in the Control condition ( $M = .13, SD = .66$ ). Results supported my first hypothesis that participants exposed to idealized images would report less favorable appearance self-appraisals.

**Desire to Engage in Social and Non-Social Activities.** For each dependent variable of interest, a separate ANOVA was conducted to examine differences between conditions. I hypothesized that significant condition effects would emerge for Risky Social Situations, Secluded Alone Activities and Contact with a Friend via Electronic Means. In contrast, I did not expect the appearance threat to impact the desire to engage in Alone Public activities, and made no specific predictions about the effect of condition on Face-to-face Contact with Known Others.

**Risky Social Situations.** The ANOVA testing desire to engage in risky social situations as a function of condition revealed a significant effect of condition,  $F(1,154) = 3.78, p = .05$ . Participants in the Appearance Threat condition reported a lower desire to engage in risky social situations ( $M = 3.96, SD = 2.50$ ) than those in the Control

condition ( $M = 4.51, SD = 2.52$ ). Results also revealed a condition by gender interaction,  $F(1, 152) = 3.77, p = .05$ .

**Secluded Alone Activities.** The ANOVA revealed a significant effect of condition,  $F(1,154) = 6.12, p = .02$ , with participants in the Appearance Threat condition reporting a greater desire to engage in secluded alone activities ( $M = 4.53, SD = 1.55$ ) than those in the Control condition ( $M = 4.09, SD = 1.57$ ).

**Alone Public Activities.** An ANOVA testing desire to engage in alone public activities as a function of condition revealed a non-significant effect of condition,  $F(1,154) = 2.25, p = .14$ , such that participants in the both conditions reported a similar desire to engage in non-secluded alone activities ( $M_{threat} = 3.23, SD = 1.88, M_{control} = 3.61, SD = 1.88$ ).

**Face-to-face Contact with Known Others.** The ANOVA testing desire for face-to-face contact with known others revealed a non-significant effect of condition,  $F(1,154) = .70, p = .40$ , indicating no significant differences between the two conditions ( $M_{threat} = 5.22, SD = 1.62, M_{control} = 5.37, SD = 1.62$ ).

**Contact with a Friend via Electronic Means.** The ANOVA testing desire to seek out a friend using electronic means as a function of condition revealed a significant effect of condition,  $F(1,154) = 5.88, p = .02$ , such that participants in the Appearance Threat condition reported a greater desire to seek out their friend via electronic means ( $M = 4.58, SD = 2.45$ ) than those in the Control condition ( $M = 3.91, SD = 2.47$ ).

Overall, these results supported the hypotheses that when both genders experienced an appearance threat, they would report an increased desire to avoid risky social situations, report an increased desire to spend time alone in a context where they

were completely secluded (and could not be seen by other individuals) and seek reassurance from a friend via electronic means. As expected, there was no condition effect on alone public activities, suggesting that the desire to be alone was manifested in the desire to be secluded or to “hide” from others. Interestingly, participants in the Appearance Threat condition did not report a greater desire to seek out a close other in a face-to-face context, which may suggest that although close others can be affirming, concern with physical appearance hindered participants’ desire for reassurance in a face-to-face context.

### **Test of the Proposed Model**

*Relational Value Mediator Selection.* Recall that my proposed model states that a drop in self-appraised appearance should predict lower perceived relational value, in turn predicting desire for social contact, therefore, I hypothesized that a general sense of perceived relational value among peers and unknown others would be more predictive of the desire for the social situations that were expected to be impacted (i.e., Risky Social Situations, Secluded Alone). That is, the motivation to engage in Risky Social Situations (e.g., meeting new people) was hypothesized to be more dependent on the extent to which participants’ felt a sense of high perceived relational value among peers and potential peers (unknown others), rather than the extent to which they felt a high sense of perceived relational value within their relationships with significant others (i.e., family members). Along a similar vein, I thought that the motivation to remain Secluded Alone would be based more on a general sense of perceived relational value within peers and acquaintances than perceived relational value within significant relationships. To determine which type of perceived relational

value would be most logical to include in the model, I first conducted a series of regression analyses to test the hypothesis that a general sense of high perceived relational value among peers, rather than perceived relational value within close relationships, would be more predictive of the social situations of interest.

To test my suspicions, two composite scores were first created by combining scores on the General Perceived Relational Value measure and the Expectation of Acceptance from Others scale. The two scales were combined as the Expectation of Acceptance from Others scale tested perceptions of acceptance within relational contexts not tested by the General Perceived Relational Value and pertaining to the dependent variables of interest. Thus, by combining the two scales, the two composite scores that were created were more representative of a wide range of relational contexts (particularly with respect to the Unknown Perceived Relational Value, as described below).

The first composite score, *Unknown Perceived Relational Value*, was created by averaging participants' scores on the peers subscale of the General Perceived Relational Value scale and the items referring to unknown others included in the Expectation of Acceptance from Others ( $r = .34, p = .001, N = 157$ ). This new variable represented perceived relational value among peers, unknown individuals and acquaintances. The second composite score, which represented perceived relational value among close and known others was called *Known Perceived Relational Value*, and was computed by averaging participants' responses on the Friends subscale of the General Perceived Relational Value scale and the items referring to known people included in the Expectation of Acceptance from Others ( $r = .31, p < .000, N = 157$ ). To

determine which best predicted desire to engage in the social situations of interest, a series of Linear Regression Analyses were conducted using the Perceived Unknown Relational Value and Perceived Known Relational Value as predictors and each social interaction type as a dependent variable (See Table 3 for detailed results). As predicted, perceived relational value among unknown others, acquaintances and peers was a better predictor of desire to engage in risky social situations, secluded alone activities and desire to seek out others via electronic means. Given these results, the *Unknown Perceived Relational Value* variable was used in the model.

***Test of the Proposed Model.*** The final model can be found in Figure 4. Given that participants were recruited from two campuses, campus was used as a covariate. To summarize the expected pattern, condition was expected to impact self-appraisals of physical appearance, such that participants in the Appearance Threat condition would report more unfavorable self-appraisals of physical appearance. In turn, unfavorable self-appraisals of physical appearance would be linked to lower perceived relational value. I hypothesized that lower perceived relational value would be linked to a decreased desire to engage in Risky Social Situations, an increased desire to be Secluded Alone and an increased desire to engage in Contact with a Friend Via Electronic Means. Given that specific predictions were made for these three dependent variables, these paths were free to be estimated by the model (i.e., were not constrained). I expected that perceived relational value would not be predictive of Alone Public activities, and thus this path was constrained to zero. With respect to Face-to-face Contact with Known Others, I initially did not make specific predictions about the nature of the predictive ability of perceived relational value on this measure.

However, given that the direct effect of condition on this measure was non-significant and that perceived relational value within unknown relationship contexts did not predict this variable, it is unlikely that the model would predict the desire to engage in Face-to-face Contact with a Known Other. Hence, the path from perceived relational value to this variable was constrained to zero. The error terms for the five dependent variables of interest were allowed to covary.

***Model Fit and Path Analysis.*** To determine model fit, a number of fit indices were calculated. First, a chi-square goodness of fit value was computed. If the model is a good fit, the Chi-square value should be non-significant (Kline, 2005). Results of the chi-square revealed a good fit,  $\chi^2 (df = 20, N = 157) = 28.59, p = .10$ . In addition, the normed Chi-square, computed by dividing the Chi-square value by the degrees of freedom, was tested. The normed chi-square value was 1.42 (i.e.,  $28.59/20$ ) which indicated a good fit, given that values under 3 (Kline, 1998) are typically argued to represent good fit. The Root Mean Square Error of Approximation (RMSEA) was also computed (values below or equal to .05 indicate good fit; Kline, 2005), and indicated that the model was a good fit,  $RMSEA = .05$ . The Comparative Fit Index (CFI) was also computed (values above .90 indicate the model has good fit; Kline, 2005) and also indicated that the model was a good fit,  $CFI = .96$ . Overall, the model fit indexes revealed that the model was an excellent fit to the data<sup>5</sup>.

The model indicated that, as expected, condition was significantly predictive of self-appraised appearance, with participants in the Appearance Threat condition reporting more unfavourable self-appraisals of appearance ( $\beta = .16, p = .03$ ). In turn, self-appraised appearance predicted perceived relational value, such that more

favourable appraisals of physical appearance predicted higher perceived relational value ( $\beta = .59, p < .001$ ). Finally, perceived relational value negatively predicted the desire to spend time in Secluded Alone activities, ( $\beta = -.24, p = .002$ ), positively predicted desire to be engage in Risky Social Situations ( $\beta = .23, p < .001$ ), and marginally negatively predicted desire to seek Contact with a Friend via Electronic Means, ( $\beta = -.14, p = .06$ ).

Overall, the above results indicated that a threat to self-appraisals of appearance impacted the desire to interact with others through self-perceived appearance and perceived relational value. When an individual experiences a threat to their appearance, a decrease in self-appraised appearance follows and people feel more poorly about their physical appearance. In turn the threatened individual experiences lower perceived relational value. This individual then experiences a diminished desire to interact with new/unknown people and a greater desire to spend time secluded alone. Furthermore, this individual simultaneously experiences a somewhat increased desire to seek out another individual, but only in contexts in which they could not be seen. This suggests that, while motivated to restore their perceived relational value, participants did not become especially interested in face-to-face interactions – even with a close other, such as a family member. Rather, participants sought out a friend in a context in which they could not be physically seen (e.g., electronic methods). These findings suggest that the appearance threat acted as a barrier that did not encourage participants to physically seek out another individual, and as such, participants had to use alternative means.

The appearance threat did not ultimately impact the desire to interact face-to-face with close known others (even when a model with this path unconstrained was tested, this path remained non-significant). On one hand, it may be expected that these participants would want to seek out an individual who could help to restore perceived relational value – a close other could likely do this. On the other hand, the appearance threat may have inhibited participants' desire for face-to-face contact. Hence, although they did not report wanting to actively *avoid* close others after appearance threat, feeling vulnerable about their appearance may have inhibited participants from approaching close others as a source of affirmation.

## **Discussion**

The results of Study 4, largely confirmed my hypotheses. Participants in the Appearance Threat condition reported more unfavourable self-appraisals of physical appearance, which lead to decreased perceived relational value, and subsequently, decreased desire to engage in interactions with unknown others and a greater desire for seclusion and for electronic contact with a friend.

Little research has directly assessed decreased desire for social contact as an outcome of a decrease in perceived relational value, but these findings appear to be consistent with theoretical arguments made by Smart Richman & Leary (2009), who suggested that experiencing rejection can cause an individual to avoid social contact. While I have looked at these outcomes as a result of an appearance threat, rather than rejection from another individual, these findings are consistent with Smart Richman & Leary's (2009) argument. These findings also appear to be consistent with Park and Pinkus (2009) and Park and Maner (2009), who found that an appearance threat led

some participants to avoid social contact. While the latter research focused on individual difference variables that moderated this effect, I took a more general approach and found that this effect emerged for all participants, including both men and women, after a strong appearance threat. Moreover, I identified a previously unexplored mediator for this relationship.

Overall, these findings highlight another consequence resulting from insecurities about physical appearance and the link between physical appearance and perceived relational value. In this study, participants reported an increased desire to engage in secluded alone activities, but not in alone public activities in which they could be seen by other people (even within a model in which this path was left unconstrained, it was non-significant). It seems that after experiencing the appearance threat, being alone but potentially visible to others did not provide enough assurance that perceived relational value would not be further threatened. To protect their vulnerable perceived relational value, participants wanted to seclude themselves and remain completely alone. This finding is quite concerning. A lack of social interaction may lead to a number of negative outcomes, such as loneliness and sadness (Buckley et al., 2004; Leary et al., 2001; Leary et al., 2006). Moreover, whereas isolating oneself with a protective motive might ensure security in the short-term by ensuring that perceived relational value does decrease any further, it is a problematic strategy. Avoiding social contact may not allow perceived relational value to be restored, potentially leading to chronic low levels of perceived relational value. This might lead to a chronically low level of perceived relational value, which is seriously damaging to the fulfillment of the need to belong.

Supporting the contention that a conflict emerged within the self in which participants wanted to avoid further rejection but were simultaneously motivated to restore perceived relational value, participants did want to seek out someone *but only though electronic contact*. Importantly, participants did not report an increased desire to seek out a close other in a face-to-face situation. Notably then, it appears that the appearance threat may have acted as a barrier, and inhibited participants from seeking out others in face-to-face contexts. These findings suggest then that an appearance threat might be doubly damaging - not only does it induce unfavourable appearance self-appraisals and lower perceived relational value, but concern with appearance might hinder the capacity to seek out others in a face-to-face context. It is interesting that participants attempted to restore their perceived relational value by electronic means, and leads to the consideration of the ability of such methods to restore perceived relational value. In other words, an interesting question may be whether perceived relational value and the need to belong can be fulfilled through online methods, or whether physical proximity is important in alleviating these emotions. Interestingly, Park (2007) found that after experiencing an appearance threat, simply identifying an individual who provided unconditional love satisfied participants' need for belonging and, subsequently, participants' did not report wanting to interact with others. Moreover, a recent study revealed that electronic contact with another individual following a rejection incident restored perceived relational value and self-esteem (Gross, 2009). These findings suggest that physical proximity, or even direct interaction, may not be needed to restore perceived relational value.

An important consideration (and next step for future research) involves the exploration of the individual difference variables that may cause a person to either seek out or avoid another person. That is, the next question to address may be when experiencing lowered perceived relational value, who seeks out others and who avoids others? What are the distinguishing individual difference variables that determine who will seek out another person to restore their relational value and who will avoid others? Self-esteem may be one factor - Park and Maner (2009) have found that, following an appearance threat, people with high self-esteem who based their self-worth on appearance sought to affiliate with other people, while people with low self-esteem who based their self-worth on appearance chose to avoid interacting with others (Park & Maner, 2009). Rejection sensitivity has also been shown to influence desire for social contact (Park & Pinkus, 2009). Smart Richman & Leary (2009) propose that the construal of a rejection incident determines the response. For example, they suggest that factors such as the perceived fairness of the rejection, the perceived potential for relationship repair with the rejecter and the perceived value of the relationship can all influence whether the rejected individual seeks out social contact, avoids social contact or desires to engage in harmful acts towards the rejecter. Moreover, they suggest that the availability of possible alternative relationships, the cost of the rejection and whether the rejection is chronic or acute may influence the rejected individuals' response. These suggestions are intriguing, but appear to explain behaviour pertaining to a specific rejection incident. In my work, however, the sense of rejection results from lower self-appraised appearance, although, as suggested above people may misattribute these feelings to their relationship partner. Hence, it might be interesting

to examine if and how these factors are important in determining behaviour in the context of my research.

### **General Discussion**

I have argued that, due to sociocultural norms conveying that a woman's social acceptance is contingent on her physical appearance, self-appraisals of physical appearance are associated with perceived relational value, particularly among women. The current studies, for the most part, supported this suggestion. I have also suggested that harmful relational consequences can result from the association of physical appearance and perceived relational value, and my research demonstrated that two of these consequences are lowered romantic relationship standards and a decreased desire for face-to-face social contact.

#### **The Relation Between Physical Appearance and Perceived Relational Value**

Study 1 revealed a correlational link between self-appraised physical appearance and perceived relational value for women, such that women who felt more favourably about their physical appearance felt more loved, valued, accepted and important within their relationships. In contrast, no link emerged between appearance self-appraisals and perceived relational value for men. Moreover, although not completely clear whether the effects were due to self-criticism or simply a focus on appearance, Study 2 revealed an impact of appearance threat on perceived relational value, and using a stronger manipulation, Study 3 demonstrated that appearance threat reduced perceived relational value which in turn led women to lower their relationship standards. In Study 4, exposure to ideal images harmed perceived relational value through self-appraisals of appearance, which in turn predicted interest in social contact.

An important consideration in this research is the importance of *perceptions*. In my studies, I chose to assess perceptions (i.e., self-appraisals) of physical appearance and perceptions of relational value, rather than investigate “objective” appearance rating (i.e., ratings of physical appearance judged by others) and actual relational value (i.e., the extent to which others actually accept, value and care about a particular person). Past research has shown that in society more objectively attractive people are more liked and viewed as a more desirable relational partners (e.g. Boyatzis et al., 1998; Dion et al., 1972; Horai et al., 1974; Kleck et al., 1974). While this may be true, I have suggested that self-appraisals of physical appearance are more strongly linked to the extent to which a person *feels* valued and accepted by others than are objective ratings of physical appearance. Indeed, in other work (Strahan, Buote & Wilson, in preparation), I have examined both self-perceptions and objective ratings of physical attractiveness, and find that self-perceptions of physical attractiveness are more predictive of perceived relational value ratings than are objective ratings of physical attractiveness. Hence, while a person might actually be very attractive and viewed as a desirable relational partner by others, they may not feel as though they are a desirable relational partner because their perception of their own appearance is unfavourable.

The importance of self-perceptions is not to be taken lightly. In their everyday life, women are continually bombarded with images depicting the ideal woman (Buote et al., in preparation). Given that many women do compare themselves to the ideal body type but that it is impossible for the vast majority of women to attain (Buote et al., in preparation; Jones, 2002; Richins, 1991; Strahan et al., 2006), women may severely undervalue their physical appearance. Hence, many women – even very

attractive women – could feel bad about their physical appearance. When one considers that body dissatisfaction among women is so rampant that it has been termed “normative” (Rodin et al., 1984), the implications for women’s relationships and well-being becomes very clear. Furthermore, my research suggests that not only are a large percentage of women feeling less loved and valued as result of unfavourable appearance appraisals, but they may be willing to endure negative treatment within their romantic relationships and may be led to avoid social contact with others.

Another important consideration of these findings is the level of awareness people have for the *cause* of decreased perceived relational value. That is, a person might sense vulnerability in the extent to which they feel loved and valued, but they may not be aware that this vulnerability resulted from an unfavourable appearance appraisal. Hence, people might not *realize* the cause of their lowered perceived relational value and may erroneously attribute these feelings to other domains. For example, a woman might inappropriately attribute her feelings of decreased value and acceptance to her romantic partner or any other type of relational partner. Hence, when feelings of lowered perceived relational value arise, unsure as to where they stem from, a person might inaccurately believe that their partner must have done something to make them feel this way.

In my past work (Strahan et al., in preparation), I asked people to indicate how much they thought perceived relational value in various relational contexts was based on a variety of domains, including physical appearance. I found that people did not report believing that other people’s acceptance, value and love for them was based on their physical appearance. Hence, people may not realize that their own feelings of

physical appearance are so closely tied to their perceptions of relational value, making it more likely that they misattribute perceived relational value.

As a result of this misattribution, a person might feel less satisfied with their relationship and their relationship partner. This is problematic because dissatisfaction with the relationship is not actually a result of a problem within the relationship, although it may be believed to be. Moreover, a misattribution has implications for fulfilling the need for belonging. Baumeister and Leary (1995) have suggested that a sense of affective concern from one's relational partner is required to fulfill the need for belonging. Given that decreases in perceived relational value may erroneously be attributed to a less loving partner, fulfillment of the need to belong may thus be inhibited.

### **Gender and the Relationship Between Physical Appearance and Perceived Relational Value**

Results of my correlational work (Study 1) revealed that, as expected, the relation between self-appraised physical appearance and perceived relational value emerged for women only. However, I demonstrated in Study 4 that when men were presented with one singular, consistent and threatening appearance ideal, they not only reported being more unhappy with their appearance, but they also reported feeling less loved, valued and accepted and experienced the same relational consequences as did women. These findings are concerning, and are consistent with research demonstrating that men experience body dissatisfaction as a result of exposure to idealized images (Blond, 2008). Past research has demonstrated that the appearance norms for men are becoming stringent and emphasizing a muscular physique (e.g., Law & Labre, 2002;

Leit, Pope, & Gray, 2000). For example, over the past 30 years the images of men found in men's magazines have become increasingly more muscular and lean (Law & Labre, 2002). However, I suggest the situation men experienced in this study is not as typical or frequent an experience for men as it is for women. While appearance norms for men may be becoming more stringent and focused on musculature and leanness, they still allow for more flexibility in physical appearance than the norms for women (Buote et al., in preparation). It is not my intention to minimize these findings for men, on the contrary, these findings highlight what *could* become a typical daily experience for men (as it currently is for women) if these norms continue to become more narrowly focused on one appearance type. These findings thus underscore the importance of preventing the male norms from reaching the extreme inflexibility characterized by the female norm.

### **Consequences of Lowered Perceived Relational Value**

The current studies have identified the consequences people experience when their perceived relational value decreases. In Study 2 and 3, I found that women lowered their relationship standards, possibly to protect their vulnerable perceived relational value and avoid romantic rejection. In Study 4, I found that both men and women reduced their desire for social contact to lessen the likelihood of further rejection, reported wanting to seclude themselves and sought out close others only through means in which they could not be physically seen.

This suggestion is consistent with Smart Richman and Leary's (2009) theoretical claim that after being rejected people experience a number of motivations, some which are at odds with one another. Smart, Richman and Leary (2009) suggest

that after rejection three motivations transpire, including 1) the desire for social contact with other individuals who can offer reassurance 2) the desire to avoid further rejection by avoiding other people and 3) the desire to engage in harmful acts towards the rejecter. Smart, Richman and Leary (2009) suggest that the construal of the rejection event determines which motivations will take precedence.

It might be suggested that the closeness of the relationship would impact the extent to which a person would seek out or avoid an individual. For example, it might be expected that a person might be more motivated to seek out a close other, as they may trust that a significant other would be able to restore relational value. However, Study 4 illustrated that participants did not want to seek out a close other in a face-to-face context. This suggests that sometimes close relationships can be vulnerable and people may not always feel completely comfortable in the knowledge that they will be loved unconditionally. The impact on the desire to interact over electronic means is an interesting finding, and may identify a “safe” way to restore perceived relational value. Indeed, a recent study revealed that, after being rejected during a ball-tossing game, online communication (with an unknown other) restored self-esteem and perceived relational more than did playing a solitary computer game (Gross, 2009). While this study is interesting and indicates that online communication can restore perceived relational when compared a non-social control, it did not compare the efficacy of online interaction to face-to-face interaction. Future research could explore this comparison and seek to further understand the ways in which perceived relational value can be restored.

In one instance (Studies 2 and 3), people sought to protect a current relationship (by lowering standards), whereas in Study 4 people sought to avoid others. While it might appear that these consequences, or strategies, are incompatible, the core aspect of these strategies is similar – people want to feel loved and valued and accepted by others and want to avoid rejection, and thus they engage in behaviours that help them to feel that way. Whether that behaviour is motivated by a desire to maintain or restore relational value, or by a motivation to protect vulnerable relational value, the ultimate goal is to feel loved, and valued and accepted. By lowering her relationship standards, a woman may cling to an unsatisfactory relationship, but this may help her to feel her relational value is secure. By avoiding potentially rejecting others, a person can protect their vulnerable perceived relational value, thus avoiding further threats to their existing relational value.

### **The Problematic Role of Sociocultural Norms**

I have suggested that the connection between self-appraised physical appearance and perceived relational value is due to the omnipresent cultural norms linking appearance and acceptance. My findings underscore the importance of finding ways to challenge these norms and of teaching girls and women (as well as boys and men) to be more critical of the norms and the images they see within society. One possibility is to engage in more critical dialogue and discussion about the norms, and the artificiality of the images depicted in society. Past research has revealed this to be somewhat effective; one intervention designed to challenge the appearance norms reduced the extent to which boys and girls accepted and internalized the norm and the extent to which girls based their self-worth on appearance (Strahan et al., 2008).

Similar results have been found with interventions targeting undergraduate women (Stice, Mazotti, Weibel, & Agras, 2000). However, there is room for improvement. With respect to eating disorder prevention, Austin (2000) has suggested that rather than simply targeting people at an individual level, large-scale changes in society must be made (Austin, 2000). Campaigns such as Dove's Campaign for Real Beauty (Dove, 2010), the recent inclusion of "real" women in magazines such as Glamour (Marikar, 2009), and the recent cover of Marie Claire featuring Jessica Simpson without makeup or retouching (Armstrong, 2009) may represent the beginning of wide-scale changes that can be made to challenge the norms and begin to show that the ideal body is not the only beautiful body. Of course, these examples represent just the beginning – more of these types of images and campaigns are needed.

### **Overall Conclusions**

In contemporary society, sociocultural norms send women the message that social acceptance and value is based on physical appearance and weight (Buote et al., in preparation; Thompson, 1999). In this research, I demonstrated that, not only do these appearance norms have implication for self-views (e.g., self-esteem, body dissatisfaction) and eating and dieting behaviour as past research has demonstrated, but that these norms have harmful consequence for women within their relationships. Indeed, this research demonstrates that women's self-appraisals of physical appearance have implications for the extent to which they feel accepted, loved and valued by others. Moreover, I find that there are severe relational consequences that result from this link, including a greater willingness to accept poor treatment from a romantic partner, and the desire to avoid social contact.

The ubiquitous nature of sociocultural norms for appearance for women and idealized images of women found within society implies that many women – even those who may be viewed as highly attractive by others – may feel poorly about their physical appearance. Given my findings, this also suggests that many women are at risk of feeling unloved, unvalued and unaccepted and in turn, are at risk for accepting poor treatment from a romantic partner, and avoiding social contact when they may need it most (i.e., to restore their relational value).

These findings only begin to answer a powerful new set of questions within social psychology. Future research will seek to further understand the relation between self-appraisals of physical appearance, perceived relational value, and the resulting consequences.

### **Limitations**

As with all research, the current studies are not without limitations. The primary limitation is the ordering of the questionnaires completed by participants in Studies 2 and 3. As explained above, presenting the perceived relational measure prior to the dependent could have counteracted the effects of the appearance manipulation. As described in greater detail below, one way to circumvent this issue may be to develop an implicit measure of perceived relational value. In addition, the manipulation in Study 2 did not lead to less favourable appraisals of physical appearance, making it more difficult to be certain the effects on perceived relational value that were found in this study were a result of unfavourable appearance self-appraisals. This may suggest that appearance self-appraisals may also be affected at a subtle, even implicit level, and future research could examine this possibility.

### **Directions for Future Research**

These studies represent only the beginning to answering a set of novel and important questions. Future research may continue to explore and extend these ideas in a number of ways.

The use of implicit measures to assess self-perceived physical appearance maybe be useful in addressing the appearance threat. That is, in Study 2, I suggested that the manipulation may not have been strong enough to lead to explicit unfavourable self-appraisals of appearance because women may simply be too used to identifying parts of the body they are dissatisfied with. Using implicit measures to assess implicit appraisals of appearance may help us to understand why effects on perceived relational value and relationship standards were nonetheless found. It may be that participants' implicit self-appraisals of physical appearance suffered, while explicit ratings did not.

Along a similar vein, an implicit measure of perceived relational value would be useful. Using this type of measure, it would be possible to assess perceived relational value prior to assessing the consequences of lowered perceived relational value. Hence, it would allow for the appropriate ordering of the questionnaires to test the mediation model, which would help to strengthen my findings. Indeed, I have recently developed an implicit measure of perceived relational value and am currently conducting research with this measure to investigate the consequences of lowered implicit perceived relational value.

Future research may also seek to further explore the impact of appearance appraisals within romantic relationships. In particular, the notion of reflected appraisals may be interesting to examine within the context of this research. For example, it

might be interesting to examine whether, when women feel unattractive, they also believe their romantic partner feels they are unattractive. For example, it may be that reflected appraisals mediate the link between self-perceived appearance and perceived relational value. That is, when women feel unattractive, they may think their partner also thinks they are unattractive, and therefore loves, values and accepts them less.

An interesting question to further examine concerns *who* is sought out when a person tries to restore their perceived relational value, and the factors that might influence which relational partner is sought out. It may be possible that factors such as relationship satisfaction or the extent to which an individual believes that a particular person *can* restore their relational value influences which individual is sought out.

Another interesting question concerns the method in which perceived relational value can be restored. Park (2007) found that simply listing the initials of a loved one appeared to reduce the desire to affiliate following an appearance threat. Hence, this might suggest the one way in which to both restore relational value and protect it from a further decrease might be to avoid others while, at the same time, consciously thinking about significant others whose love is unconditional.

Finally, more research should be conducted examining the ways that women (and possibly men) learn to associate physical appearance and social worth. I have pointed to the role of sociocultural norms, but although a great deal of research has examined the physical features of these norms, less work has explicitly focused on examining how norms convey the link between appearance and social value.

Anecdotally, television shows like *King of Queens* and *According to Jim* seem to demonstrate more frequently that men of various ages, shapes, and levels of

attractiveness can successfully obtain thin, beautiful women, while the reverse is rarely portrayed. I am currently beginning research to more systematically examine these norms. In addition, in future research it would be helpful to explicitly prime or manipulate these norms in order to establish their causal role in the appearance-relational value link that seems so salient for women. Finally, it would be interesting to examine ways to disrupt the power of these norms. For instance, can women come to truly believe that their social worth is based on far more than their appearance? Do certain kinds of messages or feedback from significant others or romantic partners help to dispel the concern that if one's physical appearance declines, acceptance will also be lost? Seeking or building relationships that are non-contingent on appearance may be an essential source of affirmation and support for many women who struggle (perhaps even without knowing it) with these vulnerabilities.

## Footnotes

<sup>1</sup> Self-esteem was a significant covariate in all analyses,  $F_s > 12.37$ ,  $p_s < .001$ , except in the analyses pertaining to relationship dissolution and relationship commitment standards,  $F_s < 1.96$ ,  $p_s > .17$ . However, for consistency, self-esteem was included as a covariate in all analyses.

<sup>2</sup> Self-esteem was a significant covariate in all analyses,  $F_s > 15.88$ ,  $p_s < .001$ .

<sup>3</sup> Relationship status (currently in a romantic relationship vs. single) did not moderate this effect,  $F(2, 143) = .24$ ,  $p = .79$ .

<sup>4</sup> Given that data was collected from two campuses, campus was used as a covariate in all analyses.

<sup>5</sup> A second model was tested in which the two constrained paths were unconstrained and allowed to be estimated. This unconstrained model was compared to the constrained model. The results indicated that constraining the two paths did not make the model significantly worse,  $\chi^2 (df = 2) = 1.30$ ,  $p = .59$ .

## Appendices

### Appendix A. Study 1 Questionnaire

#### General Relation Value Scale (GRVS)

In the following questionnaire, we are interested in learning about how you think others perceive you. That is, how you think they see you as a person. Please read the following questions, and circle the number that best represents your response.

My friends accept me for who I am.

1	2	3	4	5
Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree

My friends value me as a person.

1	2	3	4	5
Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree

My friends make me feel unwanted.

1	2	3	4	5
Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree

My family accepts me for who I am.

1	2	3	4	5
Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree

My family values me as a person.

1	2	3	4	5
Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree

My family makes me feel unwanted.

1	2	3	4	5
Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree

My peers accept me for who I am.

1	2	3	4	5
Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree

My peers value me as a person.

1	2	3	4	5
Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree

My peers make me feel unwanted.

1	2	3	4	5
Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree

The important people in my life accept me for who I am.

1	2	3	4	5
Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree

The important people in my life value me as a person.

1	2	3	4	5
Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree

The important people in my life make me feel unwanted.

1	2	3	4	5
Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree

Society accepts me for who I am.

1	2	3	4	5
Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree

Society values me as a person.

1	2	3	4	5
Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree

Society makes me feel unwanted.

1	2	3	4	5
Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree

### Self-Appraisals Scale

We are also interested in student's opinions of themselves in a number of areas we believe are important to university students. Please complete the following scales by circling the response that best applies to you.

On the following scale, please indicate how physically attractive you are.

1	2	3	4	5	6	7
Less Attractive Than Most Others			As Attractive as Most Others			More Attractive than Most Others

On the following scale, please indicate how academically successful you are.

1	2	3	4	5	6	7
Less Successful Than Most Others			As Successful as Most Others (Average)			More Successful than Most Others

On the following scale, please indicate how athletic (good at sports) you are.

1	2	3	4	5	6	7
Less Athletic than Most Others			As Athletic as Most Others (Average)			More Athletic than Most Others

On the following scale, please indicate how involved in extracurricular activities you are.

1	2	3	4	5	6	7
Less Involved than Most Others			As Involved as Most Others (Average)			More Involved than Most Others

**Demographics**

Before beginning, please complete the following questions.

Gender: Male \_\_\_\_\_  
Female \_\_\_\_\_  
Other \_\_\_\_\_ please specify \_\_\_\_\_

Age: \_\_\_\_\_

University major: \_\_\_\_\_

Ethnicity: \_\_\_\_\_

**Estimated Height and Weight**

Please provide your best estimate of the following:

Weight: \_\_\_\_\_

Height: \_\_\_\_\_



**Current Thoughts Scale (Heatherton & Polivy, 1990)**

This is a questionnaire designed to measure what you are thinking **at this moment**. There is, of course, no right answer for any statement. The best answer is what you feel is true of yourself at this moment. Be sure to answer all of the items, even if you are not certain of the best answer. Again, answer these questions as they are true for you **right now**.

1 = *not at all*    2 = *a little bit*    3 = *somewhat*    4 = *very much*    5 = *extremely*

1. I feel confident about my abilities. \_\_\_\_\_
2. I am worried about whether I am regarded as a success or failure. \_\_\_\_\_
3. I feel satisfied with the way my body looks right now. \_\_\_\_\_
4. I feel frustrated or rattled about my performance. \_\_\_\_\_
5. I feel that I am having trouble understanding things that I read. \_\_\_\_\_
6. I feel that others respect and admire me. \_\_\_\_\_
7. I am dissatisfied with my weight. \_\_\_\_\_
8. I feel self-conscious. \_\_\_\_\_
9. I feel as smart as others. \_\_\_\_\_
10. I feel displeased with myself. \_\_\_\_\_
11. I feel good about myself. \_\_\_\_\_
12. I am pleased with my appearance right now. \_\_\_\_\_
13. I am worried about what other people think of me. \_\_\_\_\_
14. I feel confident that I understand things. \_\_\_\_\_
15. I feel inferior to others at the moment. \_\_\_\_\_
16. I feel unattractive. \_\_\_\_\_
17. I feel concerned about the impression I am making. \_\_\_\_\_
18. I feel that I have less scholastic ability right now than others. \_\_\_\_\_
19. I feel like I'm not doing well. \_\_\_\_\_
20. I am worried about looking foolish. \_\_\_\_\_

**Romantic Relationship Dissolution Standards**

Within each of our relationships, we often experience ups and downs. For every relationship that we have, we need to decide which positive and negative behaviors we are willing to accept from our partner. The extent to which particular behaviors are acceptable or unacceptable varies from person to person. While some behaviors will be easily acceptable, others will be completely unacceptable and may result in the relationship ending.

The following scale asks you questions about romantic relationships. If you are currently involved in a romantic relationship, please complete this questionnaire in reference to your romantic partner. If you are not currently involved in a romantic relationship please think about the relationships you might have in the future to answer this questionnaire.

This is how this questionnaire works. Each item begins with the phrase “I would leave this relationship if my partner...”, followed by a specific item. Please indicate how often your partner would have to engage in each behavior for you to leave the relationship. Please use the following scale to make your ratings.

<b>If this Happened Even Once</b>						<b>If this happened regularly</b>
1	2	3	4	5	6	7

I would leave this relationship if my partner...	
Wasn't honest with me	
Cheated on me with another person	
Flirted with another person	
Yelled at me	
Insulted me/ put me down	
Talked behind my back	

**Romantic Relationship Commitment Standards**

The following scale also asks you questions about romantic relationships. Again, if you are currently involved in a romantic relationship, please complete this questionnaire in reference to your romantic partner. If you are not currently in a romantic relationship please think about the relationships you might have in the future to answer this questionnaire.

This is how this questionnaire works. Each item begins with the phrase “For my relationship to be successful and committed, my partner would have to...”, followed by a specific item. Please indicate how often your partner would have to engage in each behavior for you to feel that your relationship is successful and committed. Please use the following scale to make your ratings.

<b>If this Happened Even Once</b>						<b>If this happened regularly</b>
1	2	3	4	5	6	7

I would remain committed to my relationship, if my partner...	
Accepted me as I am	
Demonstrated that they cared for me (through actions, such as hugs, gifts, thinking about me)	
Made me feel special or important	
Attempted to please and satisfy me	
Made me a priority	
Was able to cheer me up when I feel down	
Agreed with my values and morals	
Was able to be counted on when I need him/her	

**Relationship Status**

Are you currently in a romantic relationship?  Yes  No \_\_\_\_\_  
 If yes, how long have you been in this relationship? \_\_\_\_\_ MONTHS OR \_\_\_\_\_ YEARS

**General Relation Value Scale (GRVS)**

In the following questionnaire, we are interested in learning about how you think others perceive you. That is, how you think they see you as a person. Please read the following questions, and circle the number that best represents your response.

1	2	3	4	5	6	7
Strongly Disagree	Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Agree	Strongly Agree

***Friends:***

- My friends accept me for who I am.  
 My friends value me as a person.  
 My friends make me feel unwanted.

***Family:***

- My family accepts me for who I am.  
 My family values me as a person.  
 My family makes me feel unwanted.

***Peers:***

- My peers accept me for who I am.  
 My peers value me as a person.  
 My peers make me feel unwanted.

***Important People:***

- The important people in my life accept me for who I am.  
 The important people in my life value me as a person.  
 The important people in my life make me feel unwanted.

***Society:***

- Society accepts me for who I am.  
 Society values me as a person.  
 Society makes me feel unwanted.

**General Self-Esteem (Rosenberg, 1965)**

Instructions: Below is a list of statements dealing with your general feelings about yourself. Please use the scale below to respond to each item.

1	2	3	4	5	6	7	8	9
Strongly Disagree		Somewhat Disagree		Neither Agree Nor Disagree		Somewhat Agree		Strongly Agree

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

**Demographics**

Please complete the following questions:

Age: \_\_\_\_\_

Gender: Male: \_\_\_\_\_

Female: \_\_\_\_\_

Other: \_\_\_\_\_ Please specify: \_\_\_\_\_

Major: \_\_\_\_\_

Ethnicity: \_\_\_\_\_

**Estimated Height and Weight**

Please provide your best estimate of the following:

Weight \_\_\_\_\_

Height \_\_\_\_\_

### Appendix C. Study 3 Questionnaire

#### Pre-Manipulation Measure of Self-Appraised Appearance

##### Self-Appraisals Scale

We are interested in students' opinions of themselves in a number of areas that might be important to them. Please complete the following scales by circling the response that best applies to you.

On the following scale, please indicate how academically successful you are.

1	2	3	4	5	6	7
Not at all Academically Successful						Very Academically Successful

On the following scale, please indicate how socially skilled you are.

1	2	3	4	5	6	7
Not at all Socially Skilled						Very Socially Skilled

On the following scale, please indicate how physically attractive you are.

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

On the following scale, please indicate how athletic (good at sports) you are.

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

On the following scale, please indicate how involved in extracurricular activities you are.

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

**Appearance Manipulation**

**Appearance Threat Condition**

We all have parts of our body or physical appearance that we are dissatisfied with or feel insecure about. Please take a moment to think about all of the aspects of your physical appearance/body/face that you feel *most insecure* about. These could be aspects of your appearance that you do not like or find unappealing, aspects that you try to hide, or aspects that are unpredictable and make you feel bad some of the time (e.g., bad hair days, pimples). In the space provided, please describe, in detail, the aspects of your physical appearance/body/face that make you feel *most insecure or dissatisfied*. Describe *specifically* what you don't like about each feature and how it makes you feel.

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**Appearance Boost Condition**

We all have parts of our body or physical appearance that we are satisfied with or feel secure about. Please take a moment to think about all of the aspects of your physical appearance/body/face that you feel *most secure* about. These could be aspects of your appearance that you like or find appealing, aspects that you are proud of and like to highlight, or aspects that you're very comfortable and content with. In the space provided, please describe, in detail, the aspects of your physical appearance/body/face that make you feel *most secure or satisfied*. Describe *specifically* what you like about each feature and how it makes you feel.

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**Control Condition**

If you look around, there are many objects in the room you are in. Please take a moment to think about all the objects you see in the room and list them in the spaces below.

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## Post-Manipulation Measure of Self-Appraised Appearance

### Current Thoughts Scale (Heatherton and Polivy, 1991)

This is a questionnaire designed to measure what you are thinking **at this moment**. There is, of course, no right answer for any statement. The best answer is what you feel is true of yourself at this moment. Be sure to answer all of the items, even if you are not certain of the best answer. Again, answer these questions as they are true for you **right now**.

1 = *not at all*    2 = *a little bit*    3 = *somewhat*    4 = *very much*    5 = *extremely*

- |   |       |
|---|-------|
| I feel confident about my abilities.                              | _____ |
| I am worried about whether I am regarded as a success or failure. | _____ |
| I feel satisfied with the way my body looks right now.            | _____ |
| I feel frustrated or rattled about my performance.                | _____ |
| I feel that I am having trouble understanding things that I read. | _____ |
| I feel that others respect and admire me.                         | _____ |
| I am dissatisfied with my weight.                                 | _____ |
| I feel self-conscious.  | _____ |
| I feel as smart as others.  | _____ |
| I feel displeased with myself.                                    | _____ |
| I feel good about myself.   | _____ |
| I am pleased with my appearance right now.                        | _____ |
| I am worried about what other people think of me.                 | _____ |
| I feel confident that I understand things.                        | _____ |
| I feel inferior to others at the moment.                          | _____ |
| I feel unattractive.  | _____ |
| I feel concerned about the impression I am making.                | _____ |
| I feel that I have less scholastic ability right now than others. | _____ |
| I feel like I'm not doing well.                                   | _____ |
| I am worried about looking foolish.                               | _____ |

### Romantic Relationship Dissolution Standards

Within each of our relationships, we often experience ups and downs. For every relationship that we have, we need to decide which positive and negative behaviors we are willing to accept from our partner. The extent to which particular behaviors are acceptable or unacceptable varies from person to person. While some behaviors will be easily acceptable, others will be completely unacceptable and may result in the relationship ending.

The following scale asks you questions about romantic relationships. If you are currently involved in a romantic relationship, please complete this questionnaire in reference to your romantic partner. If you are not currently involved in a romantic relationship please think about the relationships you might have in the future to answer this questionnaire.

This is how this questionnaire works. Each item begins with the phrase “I would leave this relationship if my partner...”, followed by a specific item. Please indicate how often your partner would have to engage in each behavior for you to *leave* the relationship. Please use the following scale to make your ratings.

If this happened even once						If this happened regularly
1	2	3	4	5	6	7

I would leave this relationship if my partner...	
Wasn't honest with me	
Broke a promise he/she made to me	
Lied to me	
Chose to spend time with someone else instead of me	
Picked a fight with me	
Did not show me respect	
Stood me up	
Told my secret/personal information to another person	
Didn't return my phone call	
Cancelled our plans	
Made me to do something I didn't want to	
Acted selfishly (thought only of himself/herself)	
Cheated on me with another person	
Flirted with another person	
Yelled at me	
Made fun of me/teased me	
Was not as strongly committed to the relationship as I was	
Insulted me/ put me down	
Pressured me into an unwanted sexual act	
Talked behind my back	

**Romantic Relationship Commitment Standards**

The following scale also asks you questions about romantic relationships. Again, if you are currently involved in a romantic relationship, please complete this questionnaire in reference to your romantic partner. If you are not currently in a romantic relationship please think about the relationships you might have in the future to answer this questionnaire.

This is how this questionnaire works. Each item begins with the phrase “For my relationship to be successful and committed, my partner would have to...”, followed by a specific item. Please indicate how often your partner would have to engage in each behavior for you to feel that your relationship is successful and committed. Please use the following scale to make your ratings.

If this happened even once						If this happened regularly
1	2	3	4	5	6	7

I would remain committed to my relationship, if my partner...	
Accepted me as I am	
Demonstrated that they cared for me (through actions, such as hugs, gifts, thinking about me)	
Made me feel special or important	
Attempted to please and satisfy me	
Made me a priority	
Was able to cheer me up when I feel down	
Agreed with my values and morals	
Supported me in my endeavors	
Was open to discussing their thoughts and feelings with me	
Was able to be counted on when I need him/her	
Compromised when we had a disagreement	
Demonstrated his/her commitment to the future of our relationship	
Complimented me	

**Relationship Status**

Are you currently in a romantic relationship?  Yes \_\_\_  No \_\_\_\_\_  
 If yes, how long have you been in this relationship? \_\_\_\_\_ MONTHS OR \_\_\_\_\_ YEARS

**General Relation Value Scale (GRVS)**

In the following questionnaire, we are interested in learning about how you think others perceive you. That is, how you think they see you as a person. Please read the following questions, and circle the number that best represents your response.

1	2	3	4	5	6	7
Strongly Disagree	Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Agree	Strongly Agree

***Friends:***

\_\_\_ My friends accept me for who I am.

***Family:***

\_\_\_ My family accepts me for who I am.

***Romantic partner: (complete only if you currently have a romantic partner)***

\_\_\_ My romantic partner accepts me for who I am.

***Peers:***

\_\_\_ My peers accept me for who I am.

***Important People:***

\_\_\_ The important people in my life accept me for who I am.

***Society:***

\_\_\_ Society accepts me for who I am.

**General Self-Esteem (Rosenberg, 1965)**

Instructions: Below is a list of statements dealing with your general feelings about yourself. Please use the scale below to respond to each item.

1	2	3	4	5	6	7	8	9
Strongly Disagree		Somewhat Disagree		Neither Agree Nor Disagree		Somewhat Agree		Strongly Agree

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

**Demographics**

Please complete the following questions:

Age: \_\_\_\_\_

Gender: Male: \_\_\_\_\_

Female: \_\_\_\_\_

Other: \_\_\_\_\_ Please specify: \_\_\_\_\_

Major: \_\_\_\_\_

Ethnicity: \_\_\_\_\_

Sexual Orientation:

Heterosexual \_\_\_\_\_

Lesbian \_\_\_\_\_

Gay \_\_\_\_\_

Bisexual \_\_\_\_\_

Transgendered \_\_\_\_\_

**Estimated Height and Weight**

Please provide your best estimate of the following:

Weight \_\_\_\_\_

Height \_\_\_\_\_

### Appendix D. Study 4 Questionnaire

#### Current Thoughts Scale (Heatherton & Polivy, 1991)

This is a questionnaire designed to measure what you are thinking **at this moment**. There is, of course, no right answer for any statement. The best answer is what you feel is true of yourself at this moment. Be sure to answer all of the items, even if you are not certain of the best answer. Again, answer these questions as they are true for you **right now**.

1 = *not at all*    2 = *a little bit*    3 = *somewhat*    4 = *very much*    5 = *extremely*

1. I feel confident about my abilities. \_\_\_\_\_
2. I am worried about whether I am regarded as a success or failure. \_\_\_\_\_
3. I feel satisfied with the way my body looks right now. \_\_\_\_\_
4. I feel frustrated or rattled about my performance. \_\_\_\_\_
5. I feel that I am having trouble understanding things that I read. \_\_\_\_\_
6. I feel that others respect and admire me. \_\_\_\_\_
7. I am dissatisfied with my weight. \_\_\_\_\_
8. I feel self-conscious. \_\_\_\_\_
9. I feel as smart as others. \_\_\_\_\_
10. I feel displeased with myself. \_\_\_\_\_
11. I feel good about myself. \_\_\_\_\_
12. I am pleased with my appearance right now. \_\_\_\_\_
13. I am worried about what other people think of me. \_\_\_\_\_
14. I feel confident that I understand things. \_\_\_\_\_
15. I feel inferior to others at the moment. \_\_\_\_\_
16. I feel unattractive. \_\_\_\_\_
17. I feel concerned about the impression I am making. \_\_\_\_\_
18. I feel that I have less scholastic ability right now than others. \_\_\_\_\_
19. I feel like I'm not doing well. \_\_\_\_\_
20. I am worried about looking foolish. \_\_\_\_\_

**Self-Appraisals Scale**

We are interested in students' opinions of themselves in a number of areas that might be important to them. Please complete the following scales by circling the response that best applies to you.

On the following scale, please indicate how academically successful you are.

1	2	3	4	5	6	7
Not at all Academically Successful						Very Academically Successful

On the following scale, please indicate how socially skilled you are.

1	2	3	4	5	6	7
Not at all Socially Skilled						Very Socially Skilled

On the following scale, please indicate how physically attractive you are.

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

On the following scale, please indicate how athletic (good at sports) you are.

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

On the following scale, please indicate how involved in extracurricular activities you are.

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

On the following scale, please indicate the extent to which you have a good personality.

1	2	3	4	5	6	7
Not a very good personality						Great Personality

On the following scale, please indicate how happy you are with your weight.

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

**General Relation Value Scale (GRVS)**

In the following questionnaire, we are interested in learning about how you think others perceive you. That is, how you think they see you as a person. Please read the following questions, and circle the number that best represents your response.

1	2	3	4	5	6	7
Strongly Disagree	Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Agree	Strongly Agree

***Friends:***

- \_\_\_ My friends accept me exactly as I am.  
 \_\_\_ My friends highly value me as a person.  
 \_\_\_ My friends sometimes make me feel unwanted.

***Family:***

- \_\_\_ My family accepts me exactly as I am.  
 \_\_\_ My family highly values me as a person.  
 \_\_\_ My family sometimes makes me feel unwanted.

***Peers:***

- \_\_\_ My peers accept me exactly as I am.  
 \_\_\_ My peers highly value me as a person.  
 \_\_\_ My peers sometimes make me feel unwanted.

***Important People:***

- \_\_\_ The important people in my life accept me exactly as I am.  
 \_\_\_ The important people in my life highly value me as a person.  
 \_\_\_ The important people in my life sometimes make me feel unwanted.

***Society:***

- \_\_\_ Society accepts me exactly as I am.  
 \_\_\_ Society highly values me as a person.  
 \_\_\_ Society sometimes makes me feel unwanted.

### Activity Choice Scale

Below is a list of activities that students sometimes like to do. Please go through the list and indicate how attractive each activity is *at this very moment*. In other words, how much you would like to be doing each activity *right now*?

Please use the following scale to indicate your responses.

I would  
*not at all*  
like to do  
this  
activity  
right now

1

2

3

4

5

6

7

I would  
*absolutely*  
like to do  
this activity  
right now

- |   |  |
|---|--|
| 1. _____ spend time on my own doing my favourite hobby                    | 8. _____ go for a bike ride by myself                  |
| 2. _____ spend time by myself   | 9. _____ meet up with my best friend                   |
| 3. _____ watch TV/movie alone   | 10. _____ surf the internet/play on the computer alone |
| 4. _____ go for coffee/out to eat with friends                            | 11. _____ meet new people                              |
| 5. _____ read a book  | 12. _____ go for a walk/hike by myself                 |
| 6. _____ go see a family member   | 13. _____ sleep  |
| 7. _____ talk with my friends using electronic means (msn, facebook etc.) |  |

### Expectation of Acceptance from Others Scale

We often have thoughts about how accepting other people are towards us. Some people can be very accepting of us, while others are much less accepting. Sometimes, this can even vary within one person-at times he/she might be very accepting, while at other times he/she might not be accepting at all.

For each of the following relationships and situations, please indicate *how accepting you feel each person (or group) would be toward you right now*. If you do not currently have one of the following relationships, please respond based on how much you *think* that person would be accepting of you, if you did have that relationship.

Please use the following scale to respond.

Not at all Accepting			Somewhat Accepting			Extremely Accepting
1	2	3	4	5	6	7

Please indicate *how accepting you feel each person or group is right now*. If an item asks for one member of a group (e.g., family member), you can call to mind one specific person.

1. strangers \_\_\_\_\_
2. your best friend \_\_\_\_\_
3. a family member \_\_\_\_\_
4. a new friend \_\_\_\_\_
5. a person you are on a first date with \_\_\_\_\_
6. classmates \_\_\_\_\_
7. a friend whom you are talking to using electronic means (MSN; facebook etc.)  
\_\_\_\_\_
8. a long term romantic partner \_\_\_\_\_

**Demographics**

Please complete the following questions:

Age: \_\_\_\_\_

Gender: Male: \_\_\_\_\_

Female: \_\_\_\_\_

Other: \_\_\_\_\_ Please specify: \_\_\_\_\_

Major: \_\_\_\_\_

Year in University: \_\_\_\_\_

Ethnicity: \_\_\_\_\_

**Estimated Height and Weight**

Please provide your best estimate of the following:

Weight \_\_\_\_\_ Height \_\_\_\_\_

Table 1.  
*Standardized Regression Weight Results of Multiple Regression Analyses for Men and Women.*

Predictors	Perceived General Relational Value	
	Men	Women
Physical Attractiveness	.11	.45***
Academic Success	-.18	-.16
Athleticism	.40†	.08
Extracurricular Involvement	.10	.14
BMI	-.10	-.20†

Note: Betas with \* are significant at  $p < .05$ , Betas with \*\* are significant at  $p < .01$  and Betas with \*\*\* are significant at  $p < .001$ . † denotes a marginally significant beta weight.

Table 2.

*Perceived Relational Value Within Peer/Friend, Society, Family and Important Others Relationships by Condition*

	Condition	
	Appearance Threat	Control
Peer/Friend	5.69 (.85) <sup>a</sup>	6.13 (.88) <sup>b</sup>
Society	4.91 (1.42) <sup>a</sup>	5.66 (1.47) <sup>b</sup>
Family	6.39 (1.08) <sup>a</sup>	6.48 (1.23) <sup>a</sup>
Important People	6.41 (.82) <sup>a</sup>	6.59 (.85) <sup>a</sup>

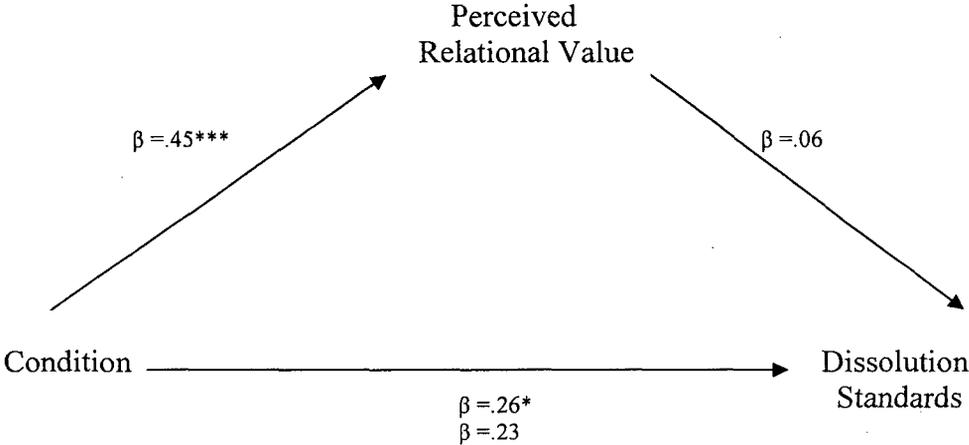
Note. Within rows, means with the same superscript are not significantly different at  $p < .05$ .

Table 3.

*Results of Linear Regression Analyses Comparing Unknown Perceived Relational Value and Known Perceived Relational Value as Predictors of Desire for Social Contact.*

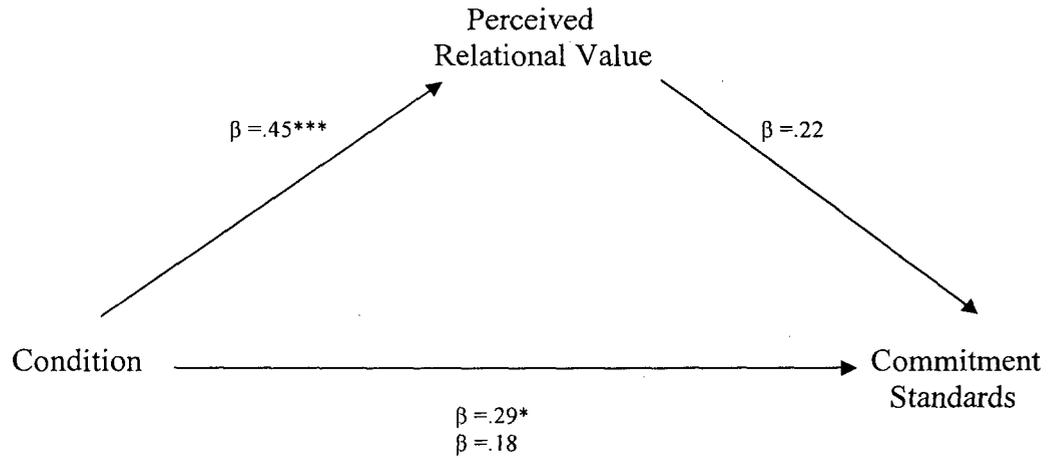
	Risky Social Situations				Face-to-face Contact with Known Others				Secluded Alone Activities				Alone Public Activities				Contact with a Friend via Electronic Means			
	<i>t</i>	df	$\beta$	<i>p</i>	<i>t</i>	df	B	<i>p</i>	<i>t</i>	df	$\beta$	<i>p</i>	<i>t</i>	df	$\beta$	<i>p</i>	<i>t</i>	df	$\beta$	<i>p</i>
Unknown Perceived Relational Value	2.57	154	.24	.01	-.63	154	-.06	.53	-3.38	154	-.32	.001	-.45	145	-.05	.65	-1.76	154	-.17	.08
Known Perceived Relational Value	.45	154	.04	.66	2.64	154	.25	.009	1.67	154	.16	.10	1.34	145	.13	.18	.91	154	.09	.36

Figure 1. Mediation Model for Relationship Dissolution Standards (Study 2).



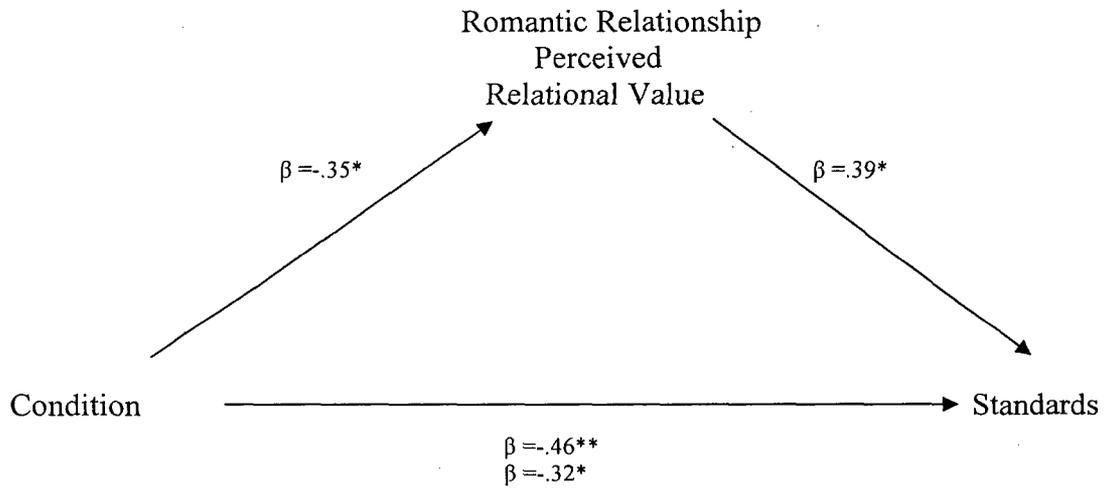
Note: Standardized betas weights with \* are significant at  $p < .05$ , betas with \*\*\* are significant at  $p < .001$ .

Figure 2. Mediation Model for Relationship Commitment Standards (Study 2).



Note: Standardized betas weights with \* are significant at  $p < .05$ , betas with \*\*\* are significant at  $p < .001$ .

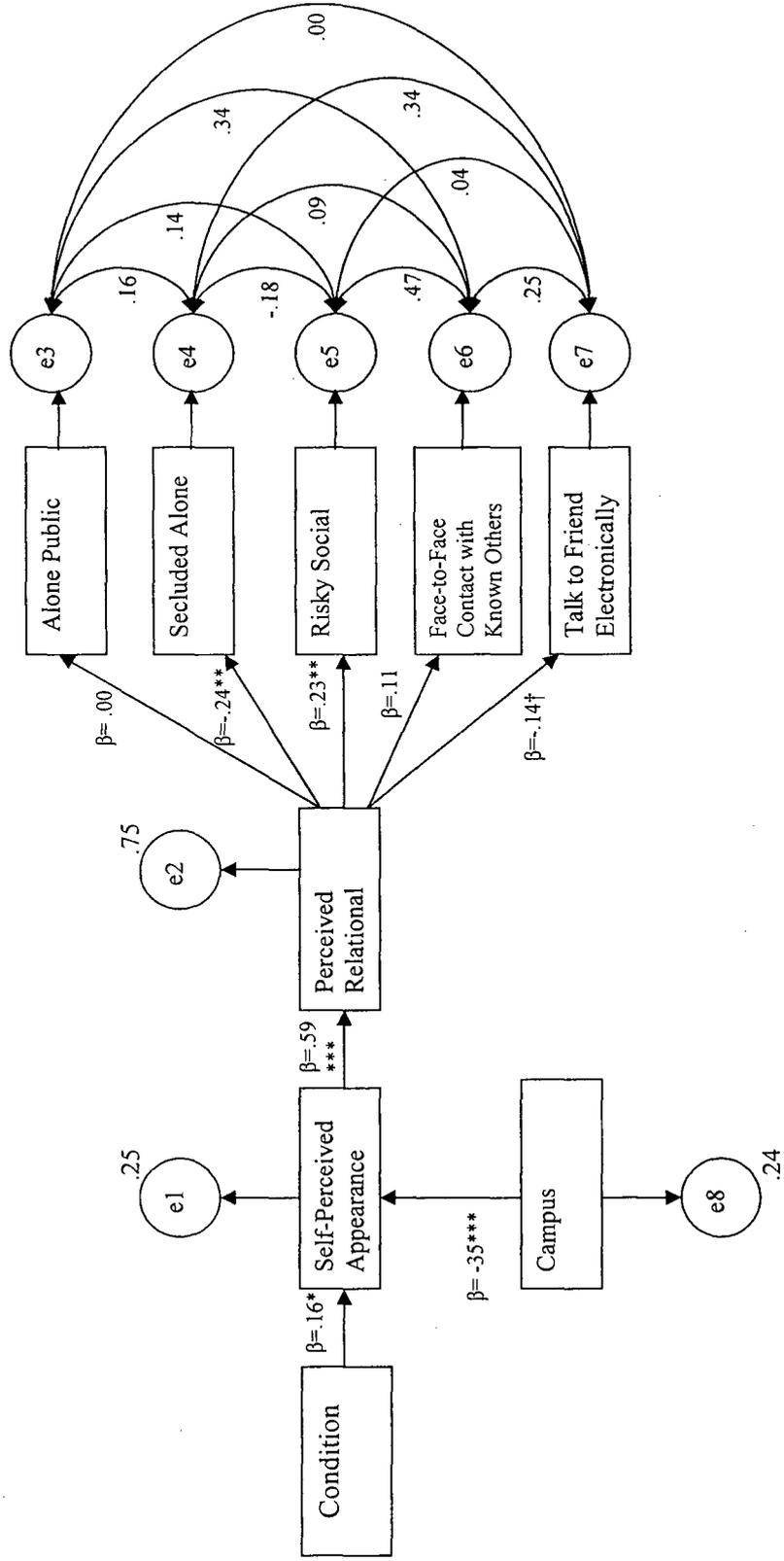
Figure 3. Mediation Model for Relationship Standards (Study 3).



Note: Standardized betas weights with \* are significant at  $p < .05$ , betas with \*\* are significant at  $p < .01$ .

Figure 4. Model of Desire for Social Contact.

Note: Standardized betas weights with \* are significant at  $p < .05$ , betas with \*\* are significant at  $p < .01$ , betas with \*\*\* are significant at  $p < .001$ . † denotes a marginally significant beta weight.



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