

SOCIAL ACCEPTANCE AND SELF-ESTEEM:  
TUNING THE SOCIOMETER TO INTERPERSONAL VALUE

by

Danu Beltara Anthony

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## Social Acceptance and Self-Esteem: Tuning the Sociometer to Interpersonal Value

### Abstract

The author drew on sociometer theory to propose that self-esteem is attuned to traits that garner others' acceptance, and the traits that garner acceptance depend on one's social role. *Attunement of self-esteem* refers to the linkage, or connection, between self-esteem and specific traits, which may be observed most clearly in the association between self-esteem and specific self-evaluations. In most roles, appearance and popularity determine acceptance, so self-esteem is most attuned to those traits. At the same time, interdependent social roles emphasize the value of communal qualities, so occupants of those roles have self-esteem that is more attuned to communal qualities than is the general norm. To avoid the biases of people's personal theories, attunement of self-esteem to particular traits was assessed indirectly via the correlation between self-esteem and self-ratings (Study 2), with cognitive accessibility measures (Study 3), by observing the responsiveness of people's self-concepts to social cues about the self (Study 4), and with an experiment involving social decision-making (Study 5). As hypothesized, self-esteem was generally more attuned to appearances than communal qualities, but interdependent social roles predicted heightened attunement of self-esteem to qualities like kindness and understanding.

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## Introduction

“Let grace and goodness be the principal loadstone of thy affections.”

*John Dryden (1631 - 1700)*

"It is better to be beautiful than good, but it is better to be good than ugly."

*Oscar Wilde (1854 - 1900)*

Western society seems to be of two minds about the traits that it values. People state emphatically that it is “what’s inside” that counts and encourage their children not to judge others based on appearances, yet they revere attractive people to an astonishing degree. They say they value communal qualities such as kindness and understanding the most (e.g., Berscheid & Reis, 1998; Buss & Barnes, 1986), but seem to be exceptionally interested in achieving good looks and popularity. However, these apparently opposing value systems are not necessarily contradictory. I argue that although appearances are highly prized in Western society, there are important social roles that emphasize the interpersonal value of “what’s inside.” My social-role model of interpersonal value predicts that self-esteem is generally tied to appearances, but self-esteem will also be linked to communal qualities when one’s social role dictates that such qualities are important for garnering acceptance from others.

### *The Social Nature of Self-Esteem*

Sociometer theory provides the framework for my predictions about the relation between self-esteem and socially valued traits (e.g., Leary & Baumeister, 2000; Leary, Tambor, Terdal, & Downs, 1995). Sociometer theory proposes that self-esteem is a barometer of one's past, present, and future perceived relational value. People high in self-esteem (HSEs) feel that they were, are, and will be valued by others, whereas people low in self-esteem (LSEs) doubt their value as relational partners, and project these doubts onto future relationships (see Leary et al., 1995; Murray, Holmes, & Collins, 2006).



In my view, sociometer theory has two primary implications for understanding the interface between one's self-esteem and one's social world. First, the theory maintains that self-esteem is responsive to one's social experiences. Specific instances of acceptance or rejection cause acute changes in one's state self-esteem (Leary et al., 1995), and over time, social experiences of acceptance or rejection cause one to have chronically high, or low, global self-esteem. To date, most research has examined this first implication of sociometer theory. But a second implication provides the framework for my theorizing in this dissertation: Chronic feelings of high or low self-esteem can influence one's beliefs and social motivations. For example, LSEs believe that they are less valuable interaction partners than do HSEs (see Leary et al., 1995), LSEs have less confidence than HSEs that their romantic partner loves them and regards them positively (Murray et al., 2006), and LSEs anticipate less acceptance from novel interaction partners than HSEs (Anthony, Wood, & Holmes, 2007). These beliefs may underlie differences between LSEs' and HSEs' social motivations--LSEs adopt a self-protective behavioral style, whereas HSEs adopt a more risky, self-enhancing style (Anthony et al., 2007; Baumeister, Tice, & Hutton, 1989).

In my dissertation, I study the implications of chronic self-esteem for beliefs and social motivation by examining the manner in which self-esteem is linked to particular traits. I refer to the linkage, or connection, between self-esteem and specific traits as the *attunement of self-esteem*. The social nature of self-esteem means that self-esteem is attuned to traits that garner acceptance from others. Attunement of self-esteem has been observed in the association between self-esteem and specific self-evaluations (e.g., MacDonald, Saltzman, & Leary, 2003). For example, HSEs, who are confident that they are valued, believe they possess valued traits in abundance, whereas LSEs, who doubt their social worth, rate themselves lower on socially valued traits. I take this idea one step further to propose that because one's social role influences the traits that garner acceptance from others, social roles will determine the attunement of self-esteem to specific traits.

For example, consider the role of a varsity athlete. The best athletes possess speed, agility, and stamina. More importantly, such people are generally admired by their peers. This association

with actual acceptance leads athletes' self-esteem to be attuned to such traits. In contrast, mathematical abilities are not predictive of acceptance for athletes, so athletes' self-esteem is not attuned to mathematical abilities. Conversely, in the social role of engineering graduate student, mathematical skills do predict one's relational value, whereas athletic abilities fade in importance. Hence, an engineering graduate student's self-esteem is attuned to math skills, but is not attuned to athletic abilities. From my perspective, the athlete and the graduate student did not decide to have self-esteem that is dependent on speed or mathematical skills. Other people made this choice for them by accepting or rejecting occupants of those social roles who possessed, or lacked, speed and mathematical abilities, respectively.

From this example, it is clear that I believe that my social-role model of the attunement of self-esteem is theoretically applicable to any social role. However, in this dissertation I focus specifically on examining the attunement of self-esteem in social roles that vary on the dimension of independence-interdependence, and rely on individual difference operationalizations of social roles to test my hypotheses. To foreshadow the arguments to come, I propose that easily observable, "superficial" traits like physical attractiveness, social skills, and popularity are the most socially valued traits in Western society. Hence, people will have self-esteem that is highly attuned to such traits. Yet I also propose that internal virtues like kindness, warmth, and honesty are highly valued in occupants of social roles within Western society that emphasize interdependence (e.g., people in close romantic relationships), and so occupants of interdependent roles will have self-esteem that is more attuned to such traits than is the general norm.

#### *The "Superficiality" of the Sociometer*

Evidence garnered over 30 years of Western social psychological research confirms the value of traits such as physical attractiveness, popularity, and social skills. Following Rubin (1973), I term such easily observable and relatively unambiguous traits *Social Commodities* (SCs). Rubin (1973) and Walster, Berschied, and Walster (1973) used the language of economics to describe the process of relationship formation, contending that SCs are the most valuable traits on the "interpersonal

marketplace.” They suggested that people first assess their own net social worth in terms of SCs, and then try to initiate a merger with someone of equal worth. People are even assumed to understand, at least implicitly, that their level of SCs heavily influences acceptance by others.

Although our society tends to use the term "superficial" pejoratively, valuing traits that are easy to assess may actually be adaptive. For example, it makes sense to judge people based upon traits that one can assess accurately in a short period of time, because it guarantees at least some value in a new interaction partner. Additionally, evolutionary models have long argued that SCs are inherently valuable because of their influence on one's ability to successfully bear or support offspring. For example, physical attractiveness may be a marker of genetic fitness and resistance to disease, making people valuable mates, whereas social status affords social and material benefits to one's mates and interaction partners (e.g., Buss & Barnes, 1986; Thornhill & Grammar, 1999). Because of their value to others, it is a harsh reality that good-looking people are well liked and well treated, which could explain why they have better social skills and social confidence (e.g., Reis, Wheeler, Spiegel, Kernis, Nezlek, & Perri, 1982). Consequently, based on my sociometer perspective, I predict that self-esteem is most attuned to SCs because SCs determine one's social value and the likelihood of acceptance by others.

#### *Communal Qualities and the Sociometer*

When people say, “It's what's inside that counts,” they refer to traits like kindness, warmth, responsiveness, and honesty. I term these less observable traits *Communal Qualities* (CQs). Participants in my studies believe that although SCs take only “an hour” to assess, CQs take “a few days,” (Anthony, Wood, Logel, Parker, & Holmes, 2007). Although Western society generally emphasizes the possession of the easy-to-assess SCs, particular social roles within Western society increase the importance of the less-observable CQs relative to the general norm.

Social roles are positions that one can hold either within a larger social structure, or within a particular relationship (Stets & Burke, 2003). Although one's personal identification with a particular role may vary, I suspect that other people do not hold such a nuanced view. For example, although

individuals vary in the extent to which they personally identify with being a woman, to other people, one simply is, or is not, a woman. Hence, other people will expect and desire occupants of a given social role to possess the traits that allow occupants of that role to successfully fulfill role requirements (e.g., Eagly & Wood, 1999). Because self-esteem is attuned to the question, “What traits will make me a valuable relational partner?,” the extent to which self-esteem is attuned to traits depends on the norms and expectancies for the social roles that people occupy. In this dissertation, I test this hypothesis by examining variation in the attunement of self-esteem across roles that differ in interdependence. Interdependent social roles emphasize the goal of satisfying another person and maintaining harmonious relationships (Brewer & Gardner, 1996; Markus & Kitayama, 1991), and so the possession of CQs is essential for fulfilling important role expectancies. I focus on three such roles--being a woman, having a primarily East Asian cultural identity, and being a romantic partner.

Cross and Madson (1997) contend that the female gender role fundamentally involves the adoption of a relational self-construal, wherein one’s primary motivation is to maintain harmonious relationships. Eagly and Wood’s Social Role Theory (Eagly & Wood, 1999; Wood & Eagly, 2002) also suggests that girls are encouraged to develop other-oriented, communal traits and that grown women who possess such traits are highly valued. Hence, I predict that women's self-esteem is more attuned to their CQ self-beliefs than is men's.

People raised in Asian cultures also tend to have more interdependent self-construals than Westerners (Markus & Kitayama, 1991; Oyserman, 2004; Triandis, 2001). I expect that North Americans of East Asian descent have self-esteem that is attuned more strongly to CQs than do other North Americans.

Finally, Interdependence Theory (Kelley, 1979) suggests that one adopts an increasingly interdependent orientation when in a satisfying romantic relationship. Thus, relative to single people, the addition of the “relationship partner” social role for people in romantic relationships should increase the attunement of self-esteem to CQs.

Although I predict that these interdependent social roles moderate the association between self-esteem and CQ self-views, I predict that none of these roles decrease the attunement of self-esteem to SCs. The broader social context of Western culture strongly emphasizes the possession of SCs, an emphasis that is not diminished by being female, being of East Asian descent, or being in a romantic relationship.

#### *Contrasting This Model with Self-Esteem Contingency Theory*

My model overlaps in theme with self-esteem contingency theory (e.g., Crocker & Wolfe, 2001). *Contingencies of self-worth* reflect the extent to which people have “staked” their self-esteem on particular domains, so people’s views of their worth depend on success or failure in the domains on which their self-esteem is contingent (Crocker, Luhtanen, Cooper, & Bouvrette, 2003; Crocker & Wolfe, 2001). Contingencies of self-worth are assessed by asking people to rate their self-esteem contingency in seven domains--others’ approval, appearance, competition, academic competence, family support, virtue (i.e., morals and ethics) and God’s love--indexed by their endorsement of items such as, “My self-esteem depends on the opinions others hold of me” (Crocker, Luhtanen et al., 2003; p. 899). People’s reports about their contingencies of self-worth predict many important outcomes. For example, women who were higher in contingency on others’ approval were more likely to join a sorority in university, and people more contingent on academic competence spent more time studying (Crocker, Luhtanen et al., 2003). Additionally, greater contingency on academic competence predicted stronger emotional reactions to academic successes and failures (Crocker, Karpinski, Quinn, & Chase, 2003; Crocker, Sommers & Luhtanen, 2002), and predicted academic problems in university when other important variables were controlled (Crocker, Karpinski et al., 2003).

Self-esteem contingency theory has not focused on the specific sources of variation in self-esteem contingencies across people. For example, Crocker and Wolfe (2001) stated that “personal standards such as contingencies of self-worth develop over the course of time in response to many social influences” (p.63). The major point at which my model deviates from contingency theory is that my sociometer perspective specifically states that acceptance from others determines self-esteem

contingencies. The attunement of self-esteem to specific traits thus is determined by what other people value in the occupants of a given social role.

I am also skeptical of people's explicit claims that their self-esteem is most contingent on virtue and least contingent on approval from others (Crocker & Wolfe, 2001). People's personal theories about their own psychology can be highly inaccurate (Nisbett & Wilson, 1977; Sedikides & Skowronski, 1995). Self-presentation concerns, self-deception, and lack of awareness of one's own motives and of the influence of external cues are but a few of the factors that influence people's personal theories. For example, people hesitate to admit that feedback from others or social comparisons influence how they feel about themselves, probably because they believe that such admissions would make them look bad (Schoeneman, 1981; Wood, 1996). This hesitancy to admit that others' opinions matter is also evident in people's personal theories about contingencies of self-worth. A measure assessing the urge to present oneself in a socially desirable light is negatively related to reported contingency on others' approval, but is positively related to reported contingency on internal virtues (Crocker, Luhtanen et al., 2003). In addition, experimental evidence suggests that people's personal theories about their self-esteem contingency on others' approval are at least partly invalid, because even people who claim to not care about others' approval clearly suffer when they are rejected (Leary et al., 2003). As Leary (2004) suggests, contingent self-esteem "often works outside people's conscious awareness" (p.12).

So although reported self-esteem contingencies predict important social experiences, in some cases, people may not be aware of the factors that affect their self-esteem. This lack of awareness could lead to inaccuracy in people's personal theories about their self-esteem contingencies. I suspect that this is particularly the case when assessing contingency on "superficial" appearances and the "virtuous" communal qualities of kindness or understanding. Hence, I ask the question: Is self-esteem more attuned to traits that reflect one's personal values, or to traits that garner acceptance from others? My sociometer perspective predicts the latter possibility. Moreover, as I have discussed

previously, my social-psychological model of the attunement of self-esteem also suggests that the specific traits that garner acceptance from others are influenced by one's social role.

### *Overview of the Present Research*

Studies 1a, 1b, and 5 test whether SCs are perceived to be more socially valuable than CQs. In Studies 2 through 5, I use indirect methods to assess the attunement of self-esteem to specific interpersonal traits, to avoid the possible self-report biases that can occur when people describe their self-esteem contingencies. As the results will show, the greater attunement of self-esteem to SCs compared to CQs is evident in the correlation between self-esteem and self-beliefs, in the association between self-esteem and the cognitive accessibility of interpersonal traits, in the responsiveness of people's self-concepts to social cues about the self, and in the manner that self-esteem affects social decision-making. But these studies also illustrate that humans are not utterly superficial creatures: When people occupy social roles that emphasize the value of CQs, self-esteem is also attuned to "what's inside." The results of these diverse studies converge to show that self-esteem reflects the traits that other people value for particular social roles, be they the "virtuous" CQs or the "superficial" SCs.

## Studies 1a and 1b: The Social Value of Traits

People's self-knowledge, including their sense of their own social value, is often biased and out of touch with objective reality (e.g., Tice & Wallace, 2003). Yet I suspect that many of the factors that bias self-knowledge (e.g., self-enhancement, ego-protection) are unlikely to affect people's social-acceptance schemata, because social-acceptance schema are actually about other people, and what other people value, not about the self. Hence, I expect that people's social-acceptance schema are actually quite accurate: People know what traits are valued by others. Evidence suggests that one's possession of SCs influences one's social outcomes to a greater degree than does one's possession of CQs (e.g., Walster et al., 1973). In these studies I examine whether people's social-acceptance schemas are in touch with social reality. I predict that people are explicitly aware that SCs are generally more socially valuable than CQs. These studies test this hypothesis and, when possible, examine whether gender and ethnicity moderate the reported social value of traits.

### *Study 1a: What "Others" Want in a Friend*

This study assesses the perceived social value of traits. Undergraduate participants ( $N = 125$ ; 51% female) examined a randomly ordered list of 10 SCs (e.g., physically attractive, popular, interesting to talk to, athletic) and 10 CQs (responsive & supportive, loyal, understanding) and circled "the six traits that most other people are looking for in a friend." Hence, this task did not assess people's personal theories about their own values, but assessed their theories about what *other* people value, a method that should limit social-desirability or self-image concerns. A repeated-measures ANOVA indicated that participants believed that other people value SCs more than CQs in potential friends ( $M_s = 2.99$  and  $2.60$ , respectively;  $SD_s = 0.90$  and  $0.98$ , respectively),  $F(1, 123) = 6.24, p < .014, \eta^2 = .05$ . Gender did not moderate these findings,  $F < 1$ , although the means were in the expected direction (SCs: men's  $M = 2.98$ , women's  $M = 2.98$ ; CQs: men's  $M = 2.48$ , women's  $M = 2.70$ ).



### *Study 1b: Evaluation of Traits by Others*

Another method of assessing the social value of traits is to assess the extent to which people believe that others are noticing or evaluating their traits. I hypothesize that in general, participants will report that others are evaluating their SCs more than their CQs, but that people of East Asian descent--who occupy a more interdependent social role than the Canadian norm--will report that others evaluate their CQs more than their SCs. I also expect that women will report more than men that their CQs are scrutinized.

Participants ( $N = 63$ ; 32% East Asian; 47% female) completed three-minute surveys at a student services center at the University of Waterloo and received a chocolate bar for their time. This sampling method allowed me to collect data that reflected a typical "slice of life" for students. Because participants reported spending similar amounts of time with strangers and friends (time with strangers  $M = 3.46$ , a little under "half the time;" time with friends  $M = 4.54$ , a little over "half the time"), both their SCs and CQs were potential targets of evaluation. Participants reported how often they thought that someone was noticing or evaluating their traits on a seven-point scale (1 - *Never*, 4 - *Once an hour*, 7 - *Every minute*), for either three SCs ("appearance or attractiveness," "social skills," "popularity or social status") or three CQs ("kindness or understanding," "warmth, lovingness, or supportiveness," "honesty or loyalty"). Frequency of evaluation for SCs and CQs were averaged to form reliable domain composite scores ( $\alpha s = .85$  and  $.77$ , respectively).

A 2 x 2 (Trait Domain x Ethnicity) ANOVA revealed a significant cross-over interaction between trait domain and ethnicity,  $F(1, 54) = 7.15, p < .010, \eta^2 = .12$ . Results are depicted in Figure 1. As expected, participants of East Asian descent reported that others evaluated their CQs more than their SCs ( $M_s = 3.66$  and  $2.44$ , respectively;  $SD_s = 1.75$  and  $1.08$ , respectively),  $F(1, 54) = 3.88, p < .051$ , but participants of other ethnicities (63% Caucasian) tended to report that their SCs were evaluated more than their CQs ( $M_s = 3.15$  and  $2.16$ , respectively;  $SD_s = 1.42$  and  $0.87$ , respectively),  $F(1, 54) = 3.50, p < .063$ . Once again, gender did not moderate these findings, but the difference

between men's and women's reports for CQs was in the expected direction ( $M_s = 2.23$  and  $2.50$ , respectively).

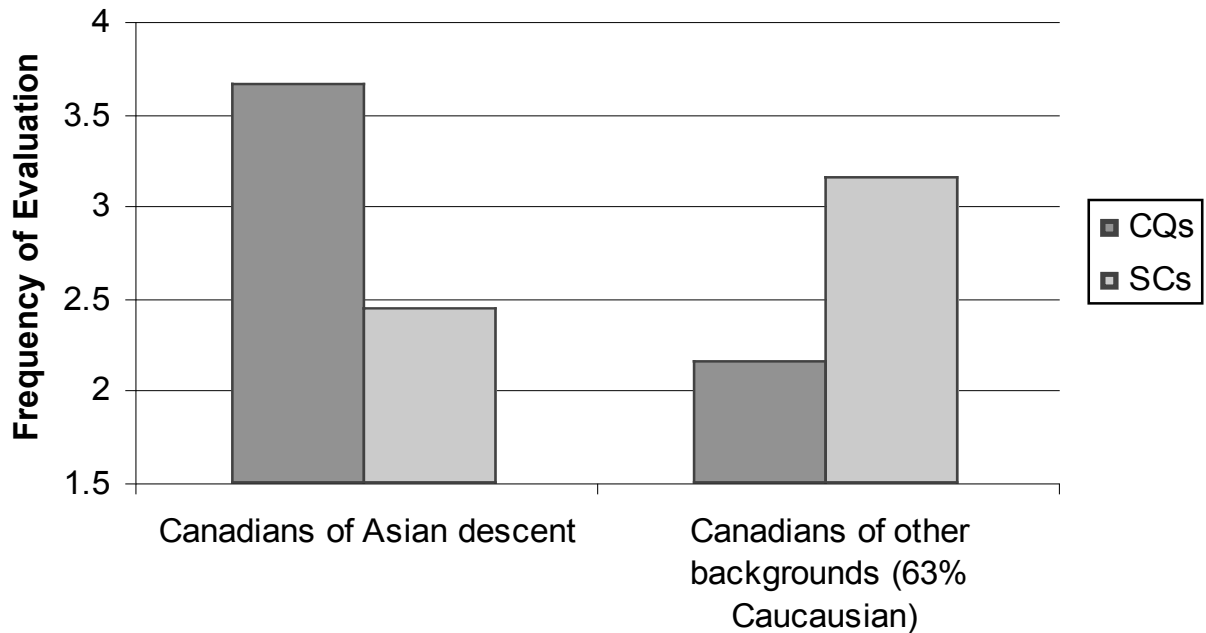


Figure 1. Participants' reports of how frequently they thought other people "noticed or evaluated their traits" as a function of participants' self-esteem in Study 1b.

### *Discussion*

The results of these studies indicate that people's social-acceptance schemata reflect the social reality that SCs are more socially valuable than CQs. What about the moderating influence of interdependence on the perceived social value of CQs? Although results supported my hypothesis for people of East Asian decent--who reported that others noticed and evaluated their CQs more than their SCs--I did not find that gender moderated the reported social value of CQs in these studies. My theory does not require that women be explicitly aware of the increased social value of CQs relative to men. Social value could influence the attainment of self-esteem without influencing one's personal theories, which are doubtless affected by many factors (e.g., social-desirability, lack of awareness). I

will return to this issue again in Study 2, when I examine the attunement of self-esteem to traits by assessing the association between self-esteem and people's SC and CQ self-concepts.

Even though people are aware that other people value SCs over CQs, they also maintain that CQs are more important to themselves than SCs. For example, I asked 279 introductory psychology students to rate the importance of CQs and SCs, and results indicated that people think that CQs are much more personally important than SCs ( $M_s = 6.06$  and  $4.70$ , respectively; Anthony, Holmes, & Wood, 2004). Moreover, participants in another study ( $N = 284$ ) maintained that they would feel better following a compliment about their CQs than following a compliment about their SCs ( $M_s = 2.86$  and  $2.31$ , respectively; Anthony et al., 2004). These personal theories are consistent with people's explicitly reported self-esteem contingency, wherein people report that their self-esteem is more contingent on virtues than appearances (Crocker & Wolfe, 2001). Hence, it appears that people are aware, and willing to admit, that others value SCs more than CQs, yet they also firmly maintain that CQs are more important to themselves than SCs. In the subsequent studies in this dissertation, I will seek to answer the question: Is self-esteem more attuned to traits that reflect people's personal values, or to traits that garner acceptance from others?

## Study 2: Explicit Self-Conceptions

This study introduces a new measure of self-concept that assesses both SCs and CQs, and then examines the attunement of self-esteem to traits by assessing the association between trait domains of the self-concept and self-esteem. I also test whether social roles moderate the association between self-esteem and these domains.

No existing measure of interpersonal self-concept assesses the wide range of traits relevant to my hypotheses. Usually, researchers assessing the social value of traits have focused either on a limited sample of socially-desired traits (often physical attractiveness), or have created a list of traits based on idiosyncratic criteria, which leads to little consistency across studies. Most studies also neglect traits that fall on the warmth dimension of the interpersonal circumplex (Wiggins, 1996), such as kindness or affection. Some measures also include items that reflect self-esteem in addition to the self-concept. For example, they use terms such as “worried” and “confident” or ask such questions as, “Have you ever felt ashamed of your physique or figure?” (Fleming & Courtney, 1984). Such mingling of self-beliefs and self-esteem precludes examination of how the self-concept relates to self-esteem.

To assess the shifting attunement of self-esteem across social roles, I created a new measure of self-rated interpersonal self-concept: The Social Attributes and Skills Inventory (SASI). To create the SASI, I used exploratory factor analyses with one sample of participants and confirmed my proposed factor structure on two additional samples. I also examined the correlation between self-esteem and the SC and CQ aspects of the self-concept to ascertain whether I am correct to propose that for Westerners, the social nature of self-esteem means that self-esteem is more attuned to SCs than CQs. Moreover, I tested whether ethnicity, gender, and relationship status moderated the attunement of self-esteem to CQs, but not SCs.

## *Method*

### *Participants*

Sample 1 consisted of 442 participants (74% female, 78% Caucasian, *M* age = 18.8), Sample 2 consisted of 221 participants (73% female, 74% Caucasian, *M* age = 19.1), and Sample 3 consisted of 644 participants (66% female; 50% Caucasian; *M* age = 19.8). Samples were drawn from separate Introductory Psychology classes at the University of Waterloo and students participated as part of a course requirement.

### *Procedure*

During online mass-testing sessions, all participants completed Rosenberg's Self-Esteem Scale (1965), which I adapted to a nine-point response format from his original four-point format (and did so for every study in this dissertation). Approximately two-to-eight weeks later, at either in-lab testing sessions (Sample 1) or online (Samples 2 and 3), participants rated themselves on trait adjectives. Samples 1 and 3 rated themselves “relative to other people” using a 100-point scale (0 - *lower than the rest of the population*, 100 - *higher than the rest of the population*). Sample 2 rated their traits using a seven-point scale (1 - *Not at all descriptive of me*, 7 - *Extremely descriptive of me*). Sample 1 rated themselves on 29 traits (15 SCs and 14 CQs). These adjectives reflected my definition of either SCs or CQs, and were drawn from research examining social exchange, mate selection, close relationships, and the self-concept (Baumgardner, 1990; Buss et al., 1990; Buss & Barnes, 1986; Campbell, 1990; Dutton & Brown, 1997; Fletcher, Simpson, Thomas, & Giles, 1999; Pelham & Swann, 1989; Reis & Shaver, 1988). Samples 2 and 3 rated themselves on 17 adjectives (9 SCs and 8 CQs) that loaded highly onto the factors obtained from exploratory analyses on Sample 1. The specific traits assessed will be described in the Results section.<sup>1</sup>

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<sup>1</sup> I have not included traits like “intelligent” and “educated” in my analyses. There is no doubt that intelligence is a valued trait, but it does not readily fit my definition of SCs or CQs: “intelligent” and “educated” fall between the SCs and CQs in terms of observability (Anthony et. al, 2004), and correlate equally with both domains. Although assessing such traits does not fit my present purposes, I hope future researchers study them with regard to their interpersonal import.

*Factor loadings of CQ and SC traits from exploratory analysis*

Trait	Factor					
	1	2	3	4	5	6
Tolerant	<b>.84</b>	.41	.32	.30	.48	.04
Understanding	<b>.81</b>	.65	.45	.38	.68	-.05
Accepting	<b>.72</b>	.52	.43	.35	.60	.03
Kind	<b>.71</b>	.62	.44	.34	.68	-.06
Patient	<b>.67</b>	.32	.28	.24	.36	.12
Adaptable	<b>.52</b>	.33	.40	.34	.28	.17
Loving	.46	<b>.86</b>	.53	.44	.63	.09
Affectionate	.40	<b>.82</b>	.51	.38	.48	.24
Warm	.51	<b>.82</b>	.52	.39	.46	.12
Responsive & Supportive	.60	<b>.77</b>	.47	.39	.61	-.03
Open & Disclosing	.41	<b>.56</b>	.43	.31	.41	.23
Sociable	.41	.51	<b>.91</b>	.53	.38	.33
Socially skilled	.36	.50	<b>.82</b>	.48	.33	.42
Interesting to talk to	.45	.56	<b>.80</b>	.58	.45	.30
Exciting personality	.26	.45	<b>.70</b>	.55	.30	.35
Good sense of humor	.38	.42	<b>.64</b>	.51	.45	.22
Sexy	.19	.34	.47	<b>.84</b>	.21	.49
Physically attractive	.26	.38	.53	<b>.81</b>	.30	.52
Charming	.32	.45	.61	<b>.74</b>	.34	.40
Stylish appearance	.26	.36	.55	<b>.61</b>	.31	.52
Healthy	.37	.32	.50	<b>.61</b>	.44	.25
Physically Active	.29	.19	.36	<b>.60</b>	.19	.27
Loyal	.47	.50	.34	.28	<b>.81</b>	.05
Honest	.49	.49	.36	.33	<b>.77</b>	.08
Considerate	.65	.59	.47	.38	<b>.69</b>	.02
Popular	.20	.34	.58	.59	.20	<b>.74</b>
Social Status	.35	.36	.58	.52	.28	<b>.66</b>
Wealthy	.16	.19	.28	.42	.20	<b>.61</b>

*Note.* Bold numbers represent the highest factor loadings for each trait. Factor 1, 2, and 5 are composed of CQs, and Factors 3, 4, and 6 are composed of SCs.

*Results and Discussion*

*Factor Analyses of the SASI*

First, I conducted an exploratory factor analysis using Principal Axis Factoring with Promax rotation, a method well suited to extracting correlated factors. Six factors with eigen values over one were extracted that accounted for 67% of the variance. The traits and loadings are listed in Table 1.

Consistent with my hypothesis, CQs and SCs loaded onto separate factors, with the former composing the first, second, and fifth factors, and the latter composing the third, fourth, and sixth factors. Examination of the factor structure also indicated that most traits loaded highly onto all three factors within a domain. For example, “kind” loaded most strongly onto the first factor, but was almost as strongly related to the traits in the second and fifth factors. I computed average factor scores, correlated each of the factors with all the others, and then used Fischer’s  $r$  to  $z$  transformation to determine that the average correlation between CQ factors (i.e., Factors 1, 2, and 5) was .61 and the average correlation between SC factors (i.e., Factors 3, 4, and 6) was .62, but the average correlation between CQ and SC factors was .44. This led me to hypothesize that although six factors emerged from the exploratory factor analysis, these six factors could be further grouped into SC and CQ domains. I tested the fit of such a model using Samples 2 and 3, and the model that I tested is depicted in Figure 2.

Using Structural Equation Modeling, I modeled two latent domains, one SC domain and one CQ domain, which were correlated with one another. These domains were each modeled to predict three latent factors. For the CQ domain, the observed variables “kind & understanding,” “patient,” and “accepting” loaded onto the first factor, “warm,” “affectionate,” and “loving” loaded onto the second factor, and the variables “loyal” and “honest” loaded onto the third. For the SC domain, “exciting personality,” “socially skilled,” and “interesting to talk to” loaded onto the first factor, “sexy,” “physically attractive,” and “physically active” loaded onto the second, and “popular,” “social status,” and “wealthy” loaded onto the third factor. For Sample 2, this model fit the data well,  $\chi^2(112, N = 221) = 229.14, p < .001$ , CFI = .93 and RMSEA = .07,<sup>2</sup> and the estimated correlation between the SC and CQ latent domains was moderate,  $r = .51, p < .001$ .

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<sup>2</sup> Given my large sample sizes, the Chi-square test is not a good index of fit, so I report the CFI and the RMSEA in all confirmatory factor analyses (Russell, 2002).

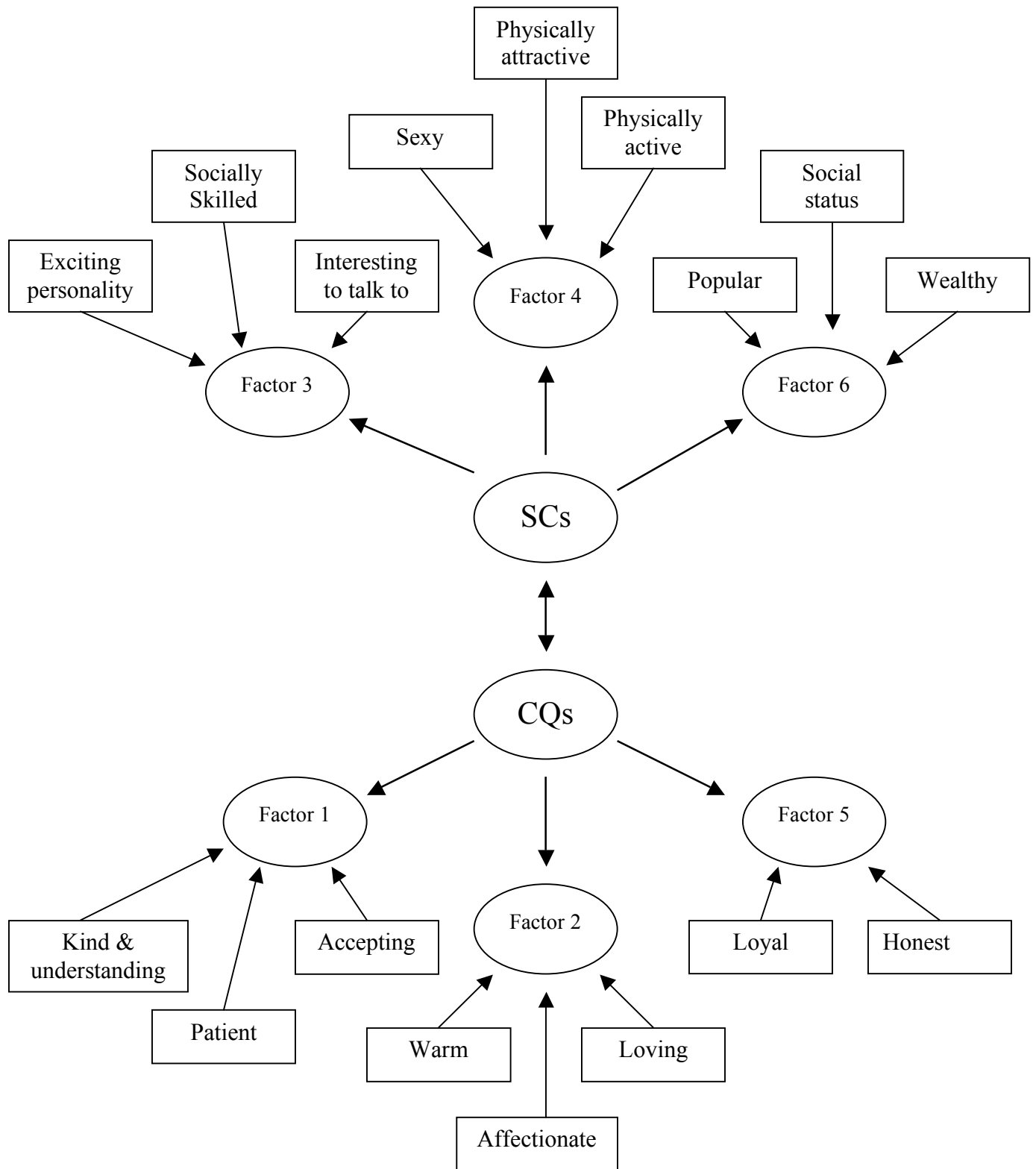


Figure 2. Confirmatory factor model tested for Samples 2 and 3 in Study 2.



I compared this two-domain model, which left the correlation between SC and CQ domains unconstrained, to a nested model that specified that the correlation between the SC and CQ domains was 1.00. This alternate model tested the possibility that a single self-concept domain predicted the six factors. This model did not fit the data as well,  $\chi^2(113, N = 221) = 274.7, p < .001$ , and represented a significant decrease in goodness-of-fit,  $\Delta\chi^2(1, N = 221) = 45.52, p < .001$ . The same results were obtained for the unconstrained model with Sample 3:  $\chi^2(112, N = 644) = 307.17, p < .001$ , CFI = .94, RMSEA = .04. Again, the latent SC and CQ domains were correlated,  $r = .61, p < .001$ , but constraining the correlation to equal 1.00 resulted in poorer fit:  $\chi^2(113, N = 644) = 317.47, p < .001$ ,  $\Delta\chi^2(1, N = 644) = 10.30, p < .001$ . Hence, I conclude that my two-domain organization of these factors is a good fit for the data.<sup>3</sup>

Based on these results, in subsequent analyses I computed mean SC and CQ scores by averaging people's self-ratings on the traits that fall within those domains. Reliabilities of these domain scores are typically very high ( $\alpha$ s = .80 to .90), and the correlation between domain self-ratings are moderate ( $r$ s = .40 to .55). To ensure that I accurately assess the domains, I always assess traits drawn from each of the three factors within the SC and CQ domains. Additionally, although I will present data that use SC and CQ domain total scores, the results look the same if I compute six factor scores: Results for the three CQ factors are consistent, and results for the three SC factors are consistent.

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<sup>3</sup> Further analyses suggested to me that relationship status, gender, and ethnicity do not moderate the factor structure, indicated by good indices of fit across groups. Sample 1: Singles--CFI = .94, RMSEA = .06; In Relationships--CFI = .91, RMSEA = .07. Sample 3: Men--CFI = .95, RMSEA = .03; Women--CFI = .92, RMSEA = .05; Asians born in Asia--CFI = .94, RMSEA = .04; Caucasians born in Canada--CFI = .91, RMSEA=.04.

### *Self-Concept and Self-Esteem*

Using data from Sample 1, I also examined the correlation between Western (i.e., Caucasians born in Canada;  $n = 320$ ) participants' self-esteem and their self-concepts, to establish the base-line association between self-esteem and SCs and CQs for Westerners. Overall, global self-esteem ( $M = 6.86$ ;  $SD = 1.28$ ) correlated moderately with the SC self-concept ( $M = 66.87$ ;  $SD = 10.74$ ),  $r = .28$ ,  $p < .001$ ,  $R^2 = .08$ , and weakly with the CQ self-concept ( $M = 77.82$ ;  $SD = 10.67$ ),  $r = .13$ ,  $p < .022$ ,  $R^2 = .02$ . The difference between these two non-independent correlations was significant,  $t(319) = 2.85$ ,  $p < .002$ . This novel finding contradicts the generally held belief that LSEs have universally more negative self-concepts than HSEs: I find that LSEs' self-beliefs about CQs are nearly as positive as HSEs', reflecting the generally greater value placed on SCs, compared to CQs, in Western culture.

### *Moderation by Ethnicity and Gender*

Using data from Sample 3, I examined the moderating influence of gender and ethnicity on the attunement of self-esteem to CQs.<sup>4</sup> I predicted that self-esteem is attuned to SCs for all participants, and that this association is not moderated by culture or gender, but that East Asians have self-esteem more attuned to their CQs than Westerners, and women have self-esteem more attuned to their CQs than men.

Sample 3 participants included 307 Caucasians born in Canada (my "Western" sample, 65% female) and 157 Asians born in East Asia (my "East Asian" sample, 68% female). In addition to scales assessing self-esteem and self-concept, East Asian participants indicated the strength of their identification with their East Asian ethnic group (e.g., Chinese, Taiwanese, Korean) and all participants rated the strength of their identification with Canadian culture in general (both scales: 0 -

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<sup>4</sup> Readers may wonder why I did not test all of my moderation hypotheses on all three Samples. I used data from Sample 1 to establish the base-line correlation between self-esteem and SCs and CQs for Westerners because such detailed ethnicity information was not available for Sample 2, and because Sample 3 data was used to test the moderation by ethnicity and gender hypotheses. Moreover, I used Sample 3 data to test the moderation by ethnicity and gender hypotheses because Samples 1 and 2 did not include any Asian born Asians. Finally, I used Sample 1 to test the moderation by relationship status hypothesis because relationship status data was not available for the other samples.

*not at all, 10 - very much*). As anticipated, East Asian participants were more identified with their Asian ethnic group than with Canadian culture in general ( $M_s = 7.95$  and  $6.76$ , respectively;  $SD_s = 1.77$  and  $2.13$ , respectively),  $F(1, 153) = 30.26, p < .001, \eta^2 = .17$ .

To examine the attunement of self-esteem to these traits, I first ran a hierarchical regression in which mean-centered self-esteem, dummy coded gender (female = 0, male = 1), dummy coded ethnicity (Western = 0, East Asian = 1), and the interactions between the variables were used to predict the difference between participants' CQ and SC self-ratings. This technique allowed me to examine whether there was a Self-esteem x Gender x Trait Domain interaction (which would result if gender moderated the association between self-esteem and CQs but not SCs), and whether there was a Self-esteem x Ethnicity x Trait Domain interaction (which would result if ethnicity moderated the association between self-esteem and CQs but not SCs). Results confirmed these hypotheses, with a significant Self-esteem x Gender interaction predicting the difference between participants' CQs and SCs,  $\beta = .17, t(463) = 2.26, p < .024$ , and a significant Self-esteem x Ethnicity interaction,  $\beta = .14, t(463) = 2.63, p < .009$ .

To further decompose these interactions, two hierarchical regressions were performed that used mean-centered self-esteem, dummy coded gender (female = 0, male = 1), dummy coded ethnicity (Western = 0, East Asian = 1), and the interactions between the variables to predict either SCs or CQs. In this hierarchical procedure, I entered main-effects at Step 1. At Step 2, two-way interactions were added to the equation, and at Step 3 I added the three-way interaction as a predictor. If the three-way interaction was not significant, I interpreted the two-way interactions that were entered at Step 2. If the 2-way interactions were not significant, I interpreted and reported the main-effects from Step 1. In these analyses I am primarily interested in examining how the slope of the association between self-esteem and self-concept varies as a function of gender and ethnicity: Steeper slopes represent a stronger association between self-esteem and self-concept, which is one indicator of the attunement of self-esteem to particular traits.

*Social Commodities.* A main effect of self-esteem replicated my previous finding that people higher in self-esteem rate themselves higher in SCs (predicted  $M_s$ : -1  $SD$  = 2.84 and +1  $SD$  = 4.12),  $\beta$  = .48,  $t(463) = 12.11$ ,  $p < .001$ ,  $R^2 = .23$ . Also, women rated themselves higher in SCs than men ( $M_s$  = 3.52 and 3.35, respectively; both  $SD_s$  = 1.08),  $\beta$  = .08,  $t(463) = 2.13$ ,  $p < .034$ ,  $R^2 = .01$ , and Westerners rated themselves higher in SCs than did East Asians ( $M_s$  = 3.65 and 3.09, respectively; both  $SD_s$  = 1.05),  $\beta$  = -.19,  $t(463) = -4.81$ ,  $p < .001$ ,  $R^2 = .04$ . Neither gender nor ethnicity moderated the association between self-esteem and SCs.

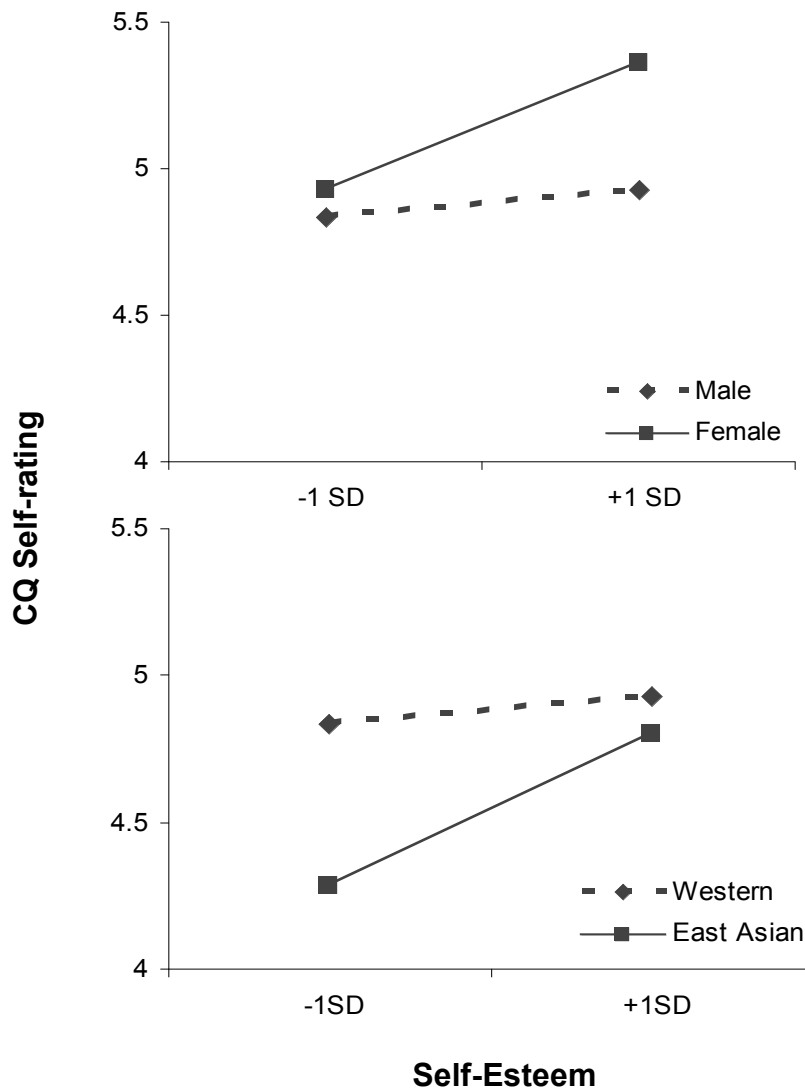
*Communal Qualities.* As anticipated, both gender and ethnicity moderated the association between self-esteem and CQs,  $\beta$  = .14,  $t(463) = 1.89$ ,  $p < .059$ ,  $R^2 = .01$ , and  $\beta$  = .12,  $t(463) = 2.27$ ,  $p < .023$ ,  $R^2 = .01$ . Results are graphed in Figure 3. Men's self-esteem was not related to CQs (predicted  $M_s$ : -1  $SD$  = 4.83 and +1  $SD$  4.93),  $t(463) < 1$ , whereas women's self-esteem was associated with CQ self-ratings (predicted  $M_s$ : -1  $SD$  = 4.92 and +1  $SD$  = 5.36),  $t(463) = 3.28$ ,  $p < .009$ . Also, Westerners' self-esteem was not generally related to CQs (predicted  $M_s$ : -1  $SD$  = 4.83 and +1  $SD$  4.93),  $t(463) < 1$ , but East Asians' self-esteem was attuned to CQs (predicted  $M_s$ : -1  $SD$  = 4.28 and +1  $SD$  4.80),  $t(463) < 3.74$ ,  $p < .001$ . A three-way interaction of gender, ethnicity, and self-esteem did not emerge,  $\beta$  = -.04,  $t < 1$ .<sup>5</sup>

#### *Moderation by Relationship Status*

Next, I tested whether the association between self-concept and self-esteem was moderated by relationship status. I hypothesized that the relation between self-esteem and CQs is stronger for people in relationships than for singles, because people in relationships occupy a particularly salient social role that emphasizes interdependence, which should increase the social value of traits such as kindness and understanding.

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<sup>5</sup> Restriction of range does not appear to have influenced these results, because all groups of participants had similar ranges in self-esteem and CQs (Western women: 1.31 and 0.87, respectively; Western men: 1.40 and 0.97, respectively; East Asian women: 1.25 and 1.00, respectively; East Asian men: 1.36 and 0.99, respectively).

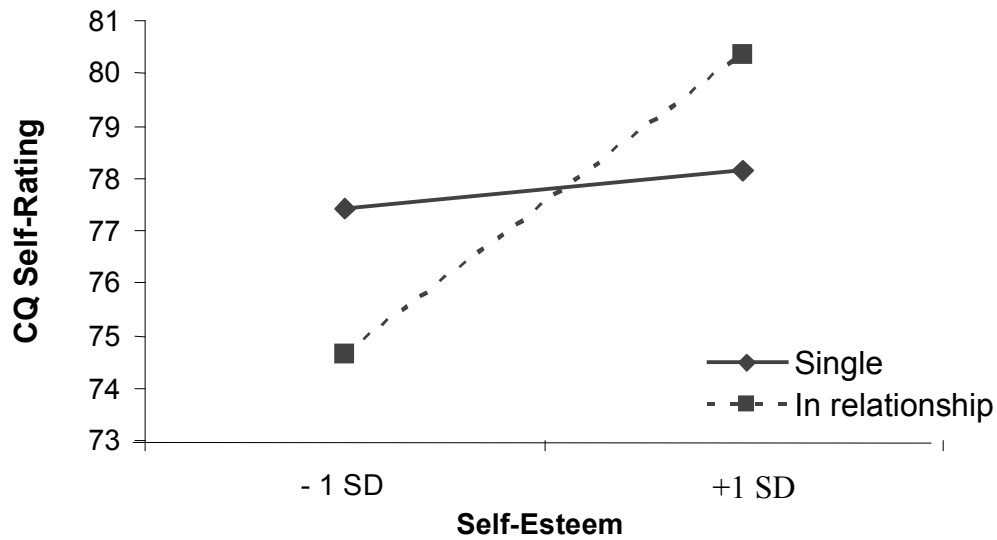


**Figure 3.** Top Panel: Graph depicting the two-way interaction between gender and self-esteem predicting Communal Quality self-ratings in Study 2. Bottom Panel: Graph depicting the two-way interaction between ethnicity and self-esteem predicting Communal Quality self-ratings in Study 2.

Relationship status data were available for 311 (77 males, 234 females) of the Caucasian participants in Sample 1. Approximately half of the participants were in relationships, and this proportion was similar for males and females (46% and 51%, respectively). Mean levels and ranges

of self-esteem, CQs, and SCs were similar for single people ( $M_s = 6.80, 77.94, \text{ and } 67.18,$  respectively;  $SDs = 1.41, 10.87, \text{ and } 10.46,$  respectively) and people in relationships ( $M_s = 6.92, 77.70, \text{ and } 66.56,$  respectively;  $SDs = 1.15, 10.57, \text{ and } 11.07,$  respectively). In this case, the regression in which self-esteem (mean-centered), relationship status (single = 0, in relationship = 1), and the interaction between these variables were used to predict the difference between people's CQs and SCs did not reveal the expected Self-esteem x Relationship Status x Trait Domain interaction,  $\beta = -.05, t < 1$ . However, as I reported previously when examining the base-line association between domains for Westerners, in Sample 1 the association between self-esteem and self-concept is modest, and so detecting a Self-esteem x Relationship Status x Trait Domain interaction could be difficult. Hence, to test my a priori hypothesis that relationship status moderates the association between self-esteem and CQs, not SCs, two separate hierarchical regression analyses were performed, one in which SCs were the dependent variable and one in which CQs were the dependent variable. In both cases, the variables of self-esteem (mean-centered), relationship status (single = 0, in relationship = 1), and the interaction between these variables were used as predictors.

Relationship status did not directly relate to either domain of interpersonal value, both  $t_s < 1$ . As predicted, relationship status did not moderate the association between self-esteem and the SC self-concept,  $t(310) = 1.41, ns$ , but did moderate the relation between self-esteem and the CQ self-concept,  $\beta = .15, t(310) = 2.01, p < .023, R^2 = .02$ . This interaction is graphed in Figure 4. For single participants, the simple slope of the relation between self-esteem and CQs was not significant,  $\beta = .04, t(310) = .52$ , whereas for participants in relationships, the simple slope was significant,  $\beta = .27, t(310) = 3.03, p < .003$ . Relative to their single counterparts, HSEs in relationships tended to rate themselves higher in CQs, whereas LSEs in relationships tended to rate themselves lower in CQs.



**Figure 4.** Graph depicting the two-way interaction between relationship status and self-esteem predicting Communal Quality self-ratings in Study 2.

From this correlational study, the causal explanation for the Relationship Status x Self-Esteem interaction on CQs is impossible to ascertain. One possibility is that the type of person who starts a romantic relationship already has an interdependent self-construal, and that LSEs with more negative CQ self-views, but HSEs with more positive CQ self-views, are especially likely to be in romantic relationships. However, my preferred explanation is that the intimate context of a romantic relationship highlights the importance of CQs for acceptance. When assessing their interpersonal value, people focus on traits that, when single, flew under their evaluative radar. I speculate that when people's evaluative attention is drawn to the self, self-esteem tends to pull those evaluations in a self-esteem-consistent direction, colouring people's self-concepts in a top-down fashion.

### Study 3: Cognitive Accessibility of Traits

This study tests whether the differential attunement of self-esteem to SCs over CQs is also evident in the cognitive accessibility of traits. This method is less susceptible to reporting biases than the self-reports that I used in Study 2. Hence these results may offer convergent evidence for my arguments.

As in previous research, I examined the cognitive accessibility of trait adjectives via response latencies on a “me-not me” trait-categorization task (e.g., Markus, 1977). Based on evidence that the most accessible traits are central to one’s self-concept (Markus, 1977), reflect strongly held, clear beliefs (Campbell, 1990), and represent personal strengths, rather than weaknesses (Dodgson & Wood, 1998), I expect that everyone will be very quick to claim to possess CQs. These traits are important aspects of the self-concept, very high in clarity (Anthony et al., 2007), and people regard them as personal strengths (i.e., scoring in excess of the 80<sup>th</sup> percentile relative to the population). Self-esteem, which is related only modestly to Westerners’ CQ self-beliefs, should not moderate the accessibility of CQs, but gender should; women’s self-esteem should relate to the cognitive accessibility of CQs.

I hypothesized that for SCs, self-esteem will be related to accessibility of self-beliefs. HSEs think that SCs are personal strengths (i.e., self-ratings in excess of the 75<sup>th</sup> percentile), suggesting that they will be very fast to claim to possess SCs. LSEs’ more equivocal stance about their possession of SCs (i.e., scoring nearer to “average” for the population) should cause the accessibility of traits to be inhibited.

#### *Method*

##### *Participants*

Ninety-five (52% female) Canadian born Caucasian undergraduate students participated in exchange for course credit. Participants scored in the top third (HSE;  $M = 4.73$ ;  $n = 53$ ) and bottom third (LSE;  $M = 7.97$ ;  $n = 42$ ) of the distribution of scores on Rosenberg's Self-Esteem Scale (1965).



### *Procedure*

Participants completed a computer task in individual lab sessions. The computer task instructed participants to categorize traits as either “me” or “not me” based on their “first instinct,” but without responding so quickly that they made many errors. Response latencies and response choice (“me” or “not me”) were recorded. Participants first categorized 15 practice adjectives, which did not fall into either the SC or CQ domains, and then categorized 36 trait adjectives: 15 filler traits (including 10 negative adjectives), 11 SCs, and 10 CQs. The sequence of adjectives within the practice and experimental trials was randomized for each participant.

### *Results*

Two participants showed extreme scores on single items that may have indicated a lapse in attention to the task, and so these responses were treated as missing data in analyses.<sup>6</sup> Following Fazio (1990), individual response latencies were logarithmically transformed. The response latencies for “me” and “not me” responses within each domain were then averaged. This resulted in four response latency scores for each participant (“me” and “not me” latencies for SCs, and for CQs).

The infrequency of “not me” categorizations for CQs, particularly for HSE women (only five of 27 HSE women made at least one “not me” CQ categorization, compared to 12 of 22 LSE women), precluded the examination of gender difference in response latencies to CQs. Additionally, because only 16 HSEs and 22 LSEs actually made even one “not me” CQ categorization decision, a within-person analysis that included trait Domain as a predictor would have included only 40% of my sample. Therefore, for each domain of traits, CQs and SCs, I conducted a 2 x 2 (Self-Esteem x “Me” vs. “Not me” Response Latencies) repeated-measures ANOVA, wherein self-esteem was the between-subjects variable and log-transformed response latencies for “me” and “not me” decisions were the within-subjects variable.

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<sup>6</sup> One participant was an outlier on “physically attractive” and the other was an outlier for “popular.” Both of these latencies were extreme in the predicted direction (i.e., an LSE making a “me” decision, and an HSE making a “not me” decision), so their removal works against obtaining my hypothesized results.

As predicted, self-esteem was not related to response latencies for CQs, nor did it moderate the accessibility of CQ categorization decisions, both  $F$ s < 1. Overall, people were faster to categorize CQs as “me” than “not me” ( $M$ s = 1226.29 and 2105.25, respectively;  $SD$ s = 437.54 and 1491.25),  $F(1, 38) = 10.67, p < .002, \eta^2 = .22$ . In contrast, self-esteem moderated the extent to which “me” and “not me” SC categorizations were accessible,  $F(1, 81) = 12.65, p < .001, \eta^2 = .13$ . A graph of the untransformed response latencies for SCs can be seen in Figure 5. LSEs’ categorizations of me/not me were equally accessible ( $M$ s = 1543.34 and 1638.08, respectively;  $SD$ s = 622.28 and 764.35, respectively),  $F < 1$ , whereas HSEs’ “me” categorizations were more accessible than their “not me” categorizations ( $M$ s = 1326.11 and 1639.45, respectively;  $SD$ s = 402.17 and 739.50, respectively),  $F(1, 81) = 18.87, p < .001$ .<sup>7</sup>

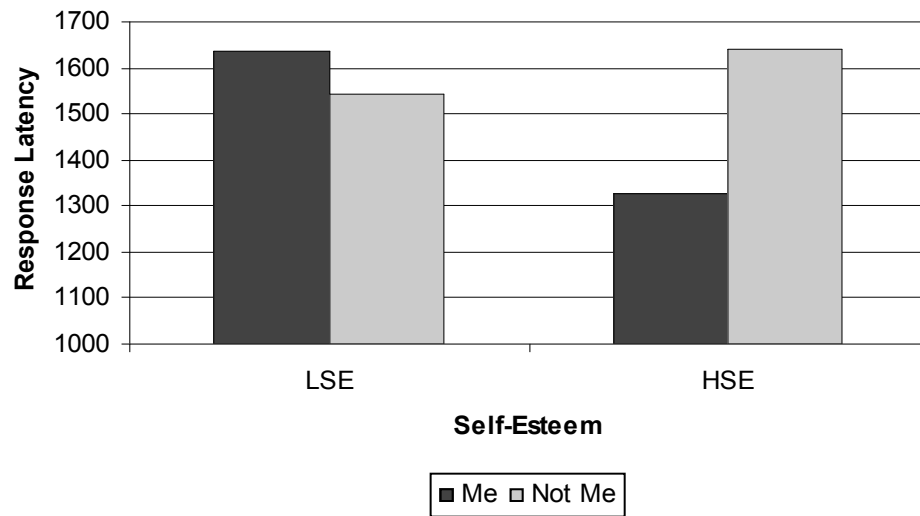
### *Discussion*

These results suggest that the attunement of self-esteem to SCs is apparent not only in explicit self-ratings, but in the very manner that people process self-relevant information. Whereas everyone was faster to categorize CQs as “me” than “not me,” only HSEs showed this same pattern for SCs. In contrast, LSEs showed similar response latencies for both “me” and “not me” SC categorizations. This suggests that HSEs may be SC schematic, whereas LSEs are not schematic on SCs (see Markus, 1977). Interestingly, if self-esteem is considered to represent an acceptance self-schema (Baldwin, 1992), as sociometer theory suggests, and SCs to represent acceptance adjectives, as I hypothesize, then this pattern of response latencies nicely mirrors Markus’s (1977) classic findings. In her research, “dependents” had more trouble accessing their independent strengths than did

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<sup>7</sup> These results are replicated with a 3-factor ANOVA conducted on only the 38 participants who made “not me” CQ categorizations. As anticipated, people were faster to categorize traits as “me” than “not me”,  $F(1, 36) = 27.16, p < .001$ , and this effect was larger for CQs than SCs (due to the very long response latencies for CQ “not me” decisions),  $F(1, 36) = 14.83, p < .001$ , but these effects were qualified by a marginally significant Self-Esteem x Trait Domain x Response Choice interaction,  $F(1, 36) = 2.46, p < .126$ . For CQs, strengths were more accessible than weaknesses for both LSEs ( $M$ s = 1260 and 2164, respectively;  $SD$ s = 510 and 1458, respectively),  $F(1, 23) = 24.95, p < .001$ , and HSEs ( $M$ s = 1163 and 1887, respectively;  $SD$ s = 356 and 1643, respectively),  $F(1, 15) = 9.47, p < .007$ . For SCs, LSEs’ strengths and weaknesses were equally accessible ( $M$ s = 1611 and 1525, respectively;  $SD$ s = 676 and 472, respectively),  $F < 1$ , whereas HSEs’ strengths were more accessible than weaknesses ( $M$ s = 1360 and 1657, respectively;  $SD$ s = 439 and 686, respectively),  $F(1, 15) = 7.56, p < .015$ .

“independents,” and in my research LSEs had more trouble accessing their acceptance strengths than did HSEs.



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Figure 5. Response latencies for Social Commodity traits as a function of response choice and self-esteem in Study 3. *Note.* Bars represent untransformed response latencies.

#### Study 4: Responsiveness of the Self-Concept to Social Cues

This study assesses the attunement of self-esteem to traits by examining the responsiveness of the self-concept to social cues about the self. Predicting future acceptance or rejection would be facilitated if one's self-views about socially valuable traits reflected others' opinions. But if people are motivated to incorporate others' opinions of their traits into their self-concepts, what happens when two different people provide conflicting social cues about the self? This situation is easily resolved if the sources of the conflicting opinions differ in how well they know the target person, because the target can easily dismiss the opinion of the less knowledgeable observer. But if the conflicting social cues come from people who know the target very well, then the target cannot resolve the conflict simply by dismissing one person's opinion. In such a situation, I believe that conflicting social cues about the self undermine one's confidence in one's possession of socially valuable traits, resulting in less positive self-views.

To test this hypothesis, in the present study I use a multiple-reporters method (à la Kenny, 1994) to assess parents' and romantic partners' opinions of the participants' traits; such ratings are an indirect indication of the type of social cues that participants receive about their traits from their parent and partner. If a parent and romantic partner do not agree in their assessment of the participant's traits (e.g., mom thinks her son is a 95, but girlfriend thinks he is an 85), then they will convey divergent social cues about the participant's possession of said traits. Parents and romantic partners tend to hold unrealistically positive views of their loved one's traits (typically in excess of the 80<sup>th</sup> percentile; Logel, Holmes, Anthony, Wood, & Cameron, 2006), and these highly positive illusions can have beneficial effects on their loved one's psychological well-being (e.g., Murray et al., 2006). However, I suggest that even if one's parent and romantic partner hold very positive views of one's traits, if they disagree, it calls into question the validity of their positive assessments and contradicts social norms about the positive biases that close loved ones should harbour about one's worth. Thus, divergent social cues about the self may be associated with less confidently held self-views, which will be evident in less positive self-views.

However, I expect that the attunement of self-esteem to SCs over CQs means that self-concept responsiveness to social cues will be moderated by trait domain and self-esteem. First, because self-esteem is strongly attuned to SCs, I expect that LSEs' self-concepts will be more responsive to divergent SC cues than will HSEs' self-concepts. LSEs are more concerned with acceptance than HSEs, and so they should pay particular attention to social cues about their SCs and have SC self-concepts that are particularly responsive to divergent social cues. In contrast, because HSEs are less concerned with acceptance from others than LSEs, HSEs should not monitor others' opinions about their traits to the same degree as LSEs. Thus HSEs' SC self-concepts will be unresponsive to divergent social cues. Second, because CQs are less predictive of acceptance than SCs, I hypothesize that people's self-concepts will be less responsive to divergent CQ cues than to divergent SC cues. Furthermore, because self-esteem is less attuned to CQs than SCs, I do not expect self-esteem to moderate self-concept responsiveness to CQ cues.<sup>8</sup>

### *Method*

#### *Participants*

Participants in this study (N = 37; 57% female), all of whom were in romantic relationships, nominated both their romantic partner and one parent to participate in the study. Participants received partial course credit for their time. All participants were between 17 and 23 years of age, were born in Canada, and English was their first language. The average age of parents (78% female) was 49 years, and the average age of partners (43% female) was 19. The significant others received a ballot in a draw for prizes in appreciation for their participation.

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<sup>8</sup> It was very difficult to obtain data for this study, given that it required both parent and partner ratings of each participant, and so the small sample size obtained (N = 36) precluded an examination of gender effects on the attunement of self-esteem in this study.

### *Procedure*

Participants completed an online survey that included a questionnaire asking them to rate themselves on a number of trait adjectives “relative to other people” using a 100-point scale (0 - *lower than the rest of the population*, 50 - *average for this characteristic*, 100 - *higher than the rest of the population*). This questionnaire included four SCs (“physically attractive,” “popular,” “sexy,” and “socially skilled”)<sup>9</sup> and five CQs (“kind,” “honest,” “responsive & supportive,” “loving,” and “warm”). The online surveys that the parents and partners completed included a questionnaire asking them to rate the target participant (i.e., their romantic partner or their child) on the same nine trait-adjectives, using the same scales. Participants also completed Rosenberg's Self-Esteem Scale (1965).<sup>10</sup>

### *Results*

Discrepancies between significant others’ views of participants’ traits were indexed by computing the absolute difference between parents’ and romantic partners’ ratings of each trait and then averaging these absolute difference scores for CQs and SCs separately. These domain discrepancy scores were moderately correlated with one another,  $r = .50, p = .002$ . Next, for each domain of traits separately, regression analysis was used to predict participants’ self-ratings from participants’ mean-centered self-esteem, mean-centered significant-other absolute discrepancy for that domain, and the interaction between the variables. This analysis allowed me to examine the relation between parent-partner discrepancies and participants’ self-conceptions.

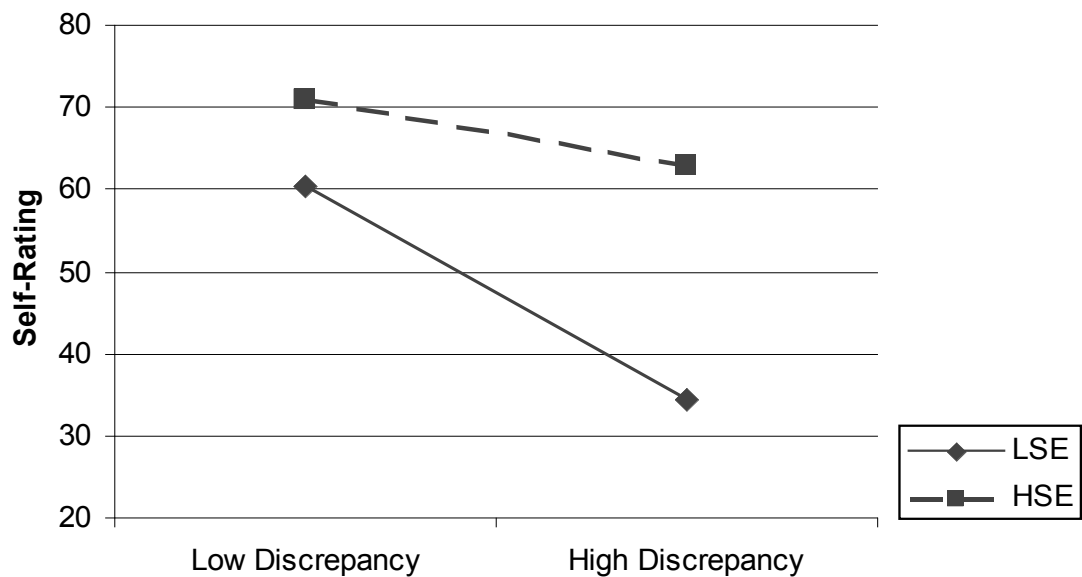
Although self-esteem ( $M = 7.22, SD = 1.34$ ) was positively related to CQ self-conceptions ( $M = 78.58, SD = 12.45$ ),  $\beta = .49, t(36) = 2.85, p < .007$ , significant-other discrepancies ( $M = 14.88, SD = 8.60$ ) were not associated with CQ self-conceptions,  $\beta = .15, t(36) = .86, ns$ , and self-esteem and discrepancies did not interact,  $\beta = -.13, t(36) < 1$ . For SCs, self-esteem was also positively related to self-conceptions ( $M = 61.93, SD = 15.60$ ),  $\beta = .54, t(36) = 4.59, p < .001$ . However, as predicted,

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<sup>9</sup> The results that I will report shortly are the same if I exclude the term “sexy” from SC total scores.

<sup>10</sup> Additional scales were included in all questionnaires but are not relevant to the current hypothesis.

absolute discrepancies about SCs ( $M = 18.94, SD = 10.48$ ) were strongly and uniquely associated with SC self-conceptions,  $\beta = -.53, t(36) = -3.98, p < .001$ . Moreover, the predicted interaction between self-esteem and absolute discrepancy was marginally-significant,  $\beta = .23, t(36) = 1.71, p = .097$ , and qualified these main-effects. This interaction is depicted in Figure 6. For HSEs (i.e.,  $+1 SD$ ), absolute discrepancies between significant-others' views of one's SCs were only weakly associated with one's self-conceptions,  $\beta = -.25, t(36) = -1.60, p = .122$ , but for LSEs (i.e.,  $-1 SD$ ), absolute discrepancies were very strongly associated with SC self-conceptions,  $\beta = -.80, t(36) = -3.21, p < .003$ .<sup>11</sup>



**Figure 6.** Participants' self-ratings as a function of participants' self-esteem and the absolute level of discrepancy between parent and partner SC-ratings of participants in Study 4.  
*Note.* Self-esteem and rater discrepancies were both plotted for values one standard deviation above and below their respective means.

<sup>11</sup> It is true that CQ self-ratings and significant-other discrepancies had less variance than SC self-ratings and significant-other discrepancies, and thus restriction of range could explain the observed domain difference in self-concept responsiveness to social cues. Yet CQ self-ratings and significant-other discrepancies had enough variance to correlate moderately with self-esteem and significant-other discrepancies for SCs, respectively, suggesting that restriction of range is not a serious confound in these results.

## Discussion

As hypothesized, participant's self-concepts were much more responsive to inconsistent cues about SCs than CQs, and the attunement of self-esteem to traits that garner acceptance was evident in the finding that LSEs were more responsive to discrepant SC cues than HSEs. This latter finding is consistent with Brockner's (1984) concept of LSE plasticity, which proposes that LSEs are more susceptible to social influence than HSEs. My results offer an amendment to Brockner's theory, suggesting that LSEs are the most responsive to feedback about traits that are especially relevant to garnering acceptance from others: the SCs.

Given that the participants in this study are all in romantic relationships, and, as the results of Study 2 illustrated, self-esteem is attuned to CQs for people in romantic relationships, one might have expected participants' CQ self-concepts to be responsive to divergent social cues about CQs, and for self-esteem to moderate the strength of this responsiveness. However, the responsiveness of one's self-concept to external influences is dependent on the clarity of one's self-concept. *Self-concept clarity* refers to the extent to which one's beliefs about one's attributes are clear, confidently held, internally consistent, stable, and cognitively accessible (Campbell, 1990; Campbell, Trapnell, Heine, Katz, Lavalee, & Lehman, 1996). My research examining self-concept clarity indicates that people have much higher clarity about their CQs than about their SCs: CQ self-concepts are more extreme, more confidently held, and more internally consistent than SC self-concepts, and people show less deviation between general and situation-specific self-beliefs for CQs than for SCs following an actual social interaction (Anthony et al., 2007). Interestingly, self-esteem does not moderate trait domain differences in self-concept clarity: Both LSEs and HSEs have highly clear CQ self-views, and less clear SC self-views. Thus, in the present study, high self-concept clarity may explain why CQ self-views were unresponsive to discrepant social cues. Moreover, although the attunement of self-esteem to CQs for people in relationships appears to cause LSEs to hold more negative CQ self-views than HSEs, people's CQ self-views are so clearly and confidently held that both HSEs and LSEs have CQ self-views that are unresponsive to divergent social cues.



As with all correlational studies, causal direction cannot be established. It is possible that people who are less confident about their possession of SCs engender more varied opinions about those traits in their close others. But this causal alternative cannot explain why the same effect is not seen for CQs. Instead, I believe that these results support my contention that people's self-conceptions are responsive to inconsistent SC feedback but are relatively immune to inconsistent CQ feedback.

## Study 5: Social Decision Making

In the current study I used a behavioral method to test whether the attunement of self-esteem to traits reflects the social value of traits. In this study, I invited female participants to join a market research focus group with four current members. Recall that SCs are generally more socially valuable than CQs, even for women. Therefore, I hypothesize that if women believe that a group of strangers they are about to meet already holds a positive view of their SCs, they will strongly anticipate acceptance, especially because SCs are particularly important for garnering acceptance from strangers who cannot quickly and easily assess CQs. In contrast, because CQs are not relevant to acceptance in first impression situations, believing that the group already holds a positive view of their CQs will not increase women's anticipated acceptance from the group relative to their base line expectations.

I also predict that self-esteem will moderate women's social decision-making processes. LSEs typically doubt that they will be valued by new people they meet (Leary & Baumeister, 2000; Leary et al., 1995). Moreover, although interpersonal rejection is painful for everyone, it is especially damaging to LSEs (e.g., MacDonald & Leary, 2005; Nezlek, Kowalski, Leary, Belvins, & Holgate, 1997; Sommer & Baumeister, 2002), who cannot afford additional drops in their already depleted sociometers. To avoid such drops, LSEs adopt a preventive, self-protective orientation (Baumeister et al., 1989; Heimpel, Elliot, & Wood, 2006): They are very attentive to social cues regarding the possibility of rejection (Pickett, Gardner, & Knowles, 2004), and are more hesitant than HSEs to enter social situations unless acceptance is virtually guaranteed (Anthony et al., 2007; Murray et al., 2006). Based on this self-protective social orientation, I predict that LSEs will be very sensitive to the difference in the potential for acceptance from the group following SC versus CQ feedback. If a positive assessment of their SCs by a group of strangers makes LSEs certain that they will be accepted, as I hypothesize, LSEs should be strongly drawn to the group that gives them SC feedback. In contrast, if LSEs do not believe that CQs are a guarantee of acceptance from strangers, as I predict, then joining the group that provides CQ feedback will not be as appealing to them, because the risk of rejection will not be sufficiently low for them to eagerly enter the social situation. Although women's

self-esteem is more attuned to CQs than is men's self-esteem, women's self-esteem is still more attuned to SCs than to CQs. Hence I expect that the LSE women in this study will prefer to join the SC feedback group over the CQ feedback group, because SCs are more predictive of acceptance than CQs.

In contrast, HSEs feel that they are typically well-liked and they expect to be liked in the future (Leary & Baumeister, 2000; Leary et al., 1995). These feelings act as an emotional buffer against all but the most obvious rejection cues. I believe that this psychological insurance policy against potential rejection allows HSEs to adopt a high threshold for acceptable social risk, which permits them to enter a novel social situation with little anxiety about possible rejection. HSEs' social decision-making is consequently less contingent on social cues of acceptance or rejection than is LSEs' social decision-making (e.g., Anthony et al., 2007). Hence, in the current study I predict that HSEs will be less sensitive than LSEs to the differences in the potential for acceptance conveyed by the SC and CQ feedback, and will not base their social decision-making on the degree of acceptance that they anticipate. In contrast to people's personal theories about the importance of traits, I expect self-esteem to be attuned to the social value of traits.

### *Method*

#### *Participants*

During a mass-testing session, Introductory Psychology students at the University of Waterloo completed, among other questionnaires, Rosenberg's Self-Esteem Scale (1965). Participants in the current study were women selected from the top third (HSEs,  $M = 8.01$ ,  $n = 28$ ) and bottom third (LSEs,  $M = 5.13$ ,  $n = 30$ ) of the distribution of scores.

#### *Procedure*

Participants were telephoned and invited to an individual lab session to participate in a study about "Group Dynamics." The researcher who ran the experimental session was blind to both participants' self-esteem and SC/CQ feedback condition (although she did know when participants were in the control condition, because this condition required a slightly different procedure, as will be

described shortly). An elaborate cover story was devised to make the decision-making context realistic and meaningful. In the lab, the participant was told that the female experimenter was a representative of the “Center for Group Dynamics,” and that she was currently recruiting a replacement member for a five-person market research focus group. She informed the participant that her lab runs market research because “[it] allows us to collect data on group dynamics, which is my primary interest in this lab. So there are really two things going on here--our research on group dynamics, and the focus group.” The participant was informed that the focus group meets about once a month to assess a product, and that group members usually get to keep the product that they assess (e.g., running shoes, cell phones).

Next, the experimenter showed a short video of another group meeting (i.e., not the group that the participant could join), to give the participant “an idea of what the meetings are like.” The tape was about one minute long and showed a mixed-gender group “testing” cell phones, eating pizza, and having a good time. At this point, participants in the Control condition were asked to complete the dependent measures (which will be described in the Results section), and were debriefed and allowed to leave.

Participants in the experimental conditions were given additional information. Following the video, each participant in the experimental conditions was told that the current focus group members had viewed some anonymous questionnaires from the Introductory Psychology mass testing session, and that a sample of the participant’s questionnaires were among those viewed by the group. Supposedly, the group had been asked to provide feedback about what they thought of the people who filled out the questionnaires as part of the lab’s research on group dynamics. The participant was assured that the group did not know the identity of the people whose questionnaires they viewed, and was informed that the experimenter would show her the comments made by the current group members so that the participant would have an idea of what to expect if she joined the group. The experimenter gave the participant an envelope containing the feedback from the group and excused herself from the room so that the participant could read the feedback privately. This feedback

constituted the experimental manipulation and will be described shortly. When the experimenter returned to the room, she told the participant that the information part of the session was over, and asked the participant to complete a questionnaire that contained the dependent measures, which will be described in the Results section. After this, participants were thoroughly debriefed and allowed to leave.

Participants were randomly assigned to condition--No feedback, CQ feedback, or SC feedback--with the provision that the cells were filled evenly as the experiment progressed, and that half of the participants in each condition were HSEs and half were LSEs.

### *Experimental Conditions*

Each supposedly hand-written comment from the group members was in response to the typed question, "Based on what you have read, what impression have you formed of this person?" The feedback was on four separate sheets of paper, one for each comment, which looked as though it had been photocopied from a larger questionnaire.

Participants in the *SC-feedback condition* received the following comments:

"She seems sociable from the responses she provided to some of the items."

"I get the impression that she's fun... an outgoing person."

"I bet she has an exciting personality."

"She seems like a popular person."

Participants in the *CQ-feedback condition* received the following comments:

"She seems understanding and kind from the responses she provided to some of the items."

"I get the impression that she's honest... a trustworthy person."

"I bet she is accepting of others."

"She seems like a supportive friend."

Participants in the *No-feedback condition* did not receive any feedback.

## Results

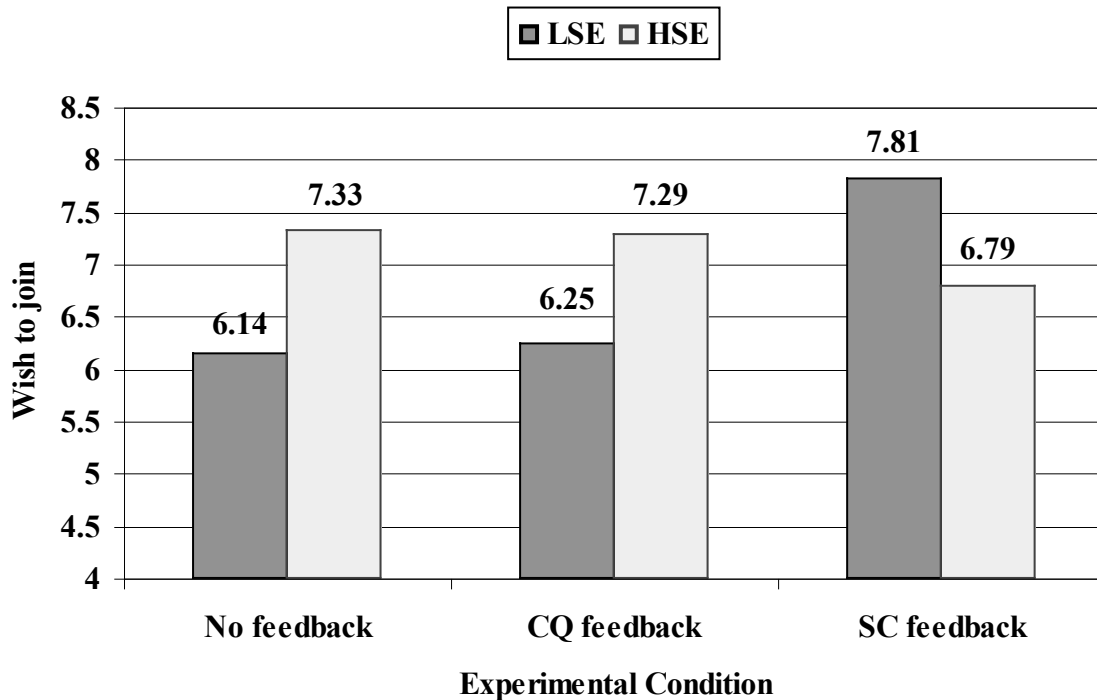
During the debriefing, four participants (one HSE in the "No feedback" condition, two HSEs in the "CQ Feedback" condition, and one LSE in the "CQ Feedback" condition) revealed that they either doubted that the group was real or doubted the feedback. Analyses were conducted with and without these participants, and their inclusion did not change the results. Therefore, their data were included in the analyses. However, one LSE in the SC condition was excluded because her responses to the dependent measures were more than three standard deviations below the mean, and one HSE woman in the SC condition was excluded because she responded in a way that raised doubts about her truthfulness (alternating highest and lowest options) on her questionnaires.

All dependent measures were administered in a single questionnaire and asked participants to respond on nine-point scales, on which low numbers represented disagreement or rejection of the statement and high numbers represented agreement or acceptance of the statement.

*Willingness to join the group.* I hypothesized that the domain of feedback would affect LSEs', but not HSEs', social decision-making. My primary dependent measure was the strength of the participant's willingness to join the group ("How much would you like to join this focus group?," "How many meetings would you like to attend?," and "How willing are you to attend meetings held late in the evenings, and on Saturday and Sunday mornings at 8:00 am?"). These items were averaged to form a *willingness to join* index ( $\alpha = .89$ ).

A 2 x 3 (Self-Esteem Group x Feedback Condition) ANOVA revealed no main effects of self-esteem or feedback condition,  $ps > .30$ . Instead, the predicted interaction emerged,  $F(2, 50) 3.23$ ,  $p < .048$ ,  $\eta^2 = .11$ , and is graphed in Figure 7. Simple-effects analyses indicated that for HSEs, feedback had no effect on their willingness to join the group,  $F(2, 50) < 1.0$ , but it did have an effect on LSEs' willingness to join the group,  $F(2, 50) = 3.99$ ,  $p < .025$ . LSEs were equally moderate in their willingness to join the group in both the No-feedback and CQ-feedback conditions ( $M_s = 6.14$  and  $6.25$ , respectively;  $SD_s = 1.49$  and  $1.52$ , respectively),  $F(2, 50) < 1$ . In contrast, LSEs were much more willing to join the group after receiving SC feedback ( $M = 7.81$ ,  $SD = 1.19$ ) than either LSEs in

the No-feedback condition,  $F(1, 50) = 6.94, p < .011$ , or CQ-feedback condition,  $F(1, 50) = 4.99, p < .029$ . Further comparisons confirmed that none of the HSE groups differed statistically from one another, all  $ps > .45$ .



**Figure 7.** Effect of *No feedback*, *CQ feedback*, or *SC feedback* on participants' willingness to join the group as a function of self-esteem in Study 5.

*Perceptions of acceptance.* I hypothesized that participants would anticipate greater acceptance from SC feedback than from CQ feedback, but that this difference in anticipated acceptance would be greater for LSEs than HSEs, due to LSEs' greater attunement to acceptance cues. To test this prediction, I asked participants: "Do you think that the group expects that they will like you immediately?," "Do you think that the group expects that they will get along with you after

they get to know you?,” “How much does the group as a whole like you now?,” “How much will the group as a whole like you after meeting you four times?,” “Do you think that the group has an accurate impression of you?,” and “Does the group recognize the qualities that you have?.” These six items were averaged to form a *perceived acceptance* index ( $\alpha = .83$ ).

A 2 x 3 (Self-Esteem Group x Feedback Condition) ANOVA on this index yielded a main effect of self-esteem, with HSEs expecting more acceptance overall than LSEs ( $M = 7.32$  and  $M = 6.58$ ;  $SDs = 0.73$  and  $1.24$ , respectively),  $F(1, 50) = 7.06, p < .010, \eta^2 = .12$ , as well as a main effect of condition,  $F(2, 50) = 8.65, p < .001, \eta^2 = .26$ . Simple-effects analyses indicated that in the No-feedback condition ( $M = 6.26, SD = 1.24$ ), participants anticipated less acceptance than participants in either the CQ-feedback condition ( $M = 7.05, SD = 0.85$ ),  $F(1, 50) = 7.37, p < .009$ , or SC-feedback condition ( $M = 7.60, SD = 0.62$ ),  $F(1, 50) = 19.98, p < .001$ . Additionally, the SC feedback was seen as more predictive of acceptance than the CQ feedback,  $F(1, 50) = 4.15, p < .046$ . Further simple-effects analyses testing my a priori hypothesis that LSEs would differentiate more than HSEs between SC and CQ feedback confirmed that LSEs anticipated much greater acceptance following SC feedback than CQ feedback ( $Ms = 7.49$  and  $6.58$ , respectively;  $SDs = 0.64$  and  $0.75$ , respectively),  $F(1, 50) = 4.32, p < .042$ , but HSE did not differentiate between SC and CQ feedback ( $Ms = 7.73$  and  $7.40$ , respectively,  $SDs = 0.60$  and  $0.76$ , respectively),  $F(1, 50) < 1$ .

*A case of moderated mediation.* I predicted that SC feedback would be more appealing to LSEs than CQ feedback because SCs are more associated with acceptance from strangers than CQs. For LSEs, believing that the group thinks they possess SCs will increase their anticipated acceptance from the group and therefore increase their willingness to join the group. In contrast, because HSEs are not attuned to small differences in the possibility of acceptance, I hypothesized that they would not prefer SC feedback to CQ feedback.

As the previous analyses indicated, HSEs were equally interested in joining the group following SC and CQ feedback, whereas LSEs strongly preferred to join the group following SC feedback. Additionally, SC feedback was related to greater anticipated acceptance from the group for



LSEs, but not for HSEs. I used regression to examine the association between anticipated acceptance from the group and participants' willingness to join the group. Self-esteem was dummy coded (LSEs = 0, HSEs = 1), anticipated acceptance mean-centered, and their product was used as the interaction term. As predicted, self-esteem moderated the association between perceived acceptance from the group and participants' willingness to join the group,  $\beta = -.33$ ,  $t(55) = 1.79$ ,  $p < .039$ . Simple-effects analyses indicated that LSEs' willingness to join the group was strongly related to their perceptions of acceptance,  $\beta = .64$ ,  $t(55) = 5.45$ ,  $p < .001$ , but HSEs' willingness was unrelated to their perceptions of acceptance,  $\beta = .02$ ,  $t(55) = .08$ . Given that self-esteem moderated the associations between the predictor, mediator, and dependent variables, I tested my mediation hypothesis for LSEs separately from HSEs.<sup>12</sup>

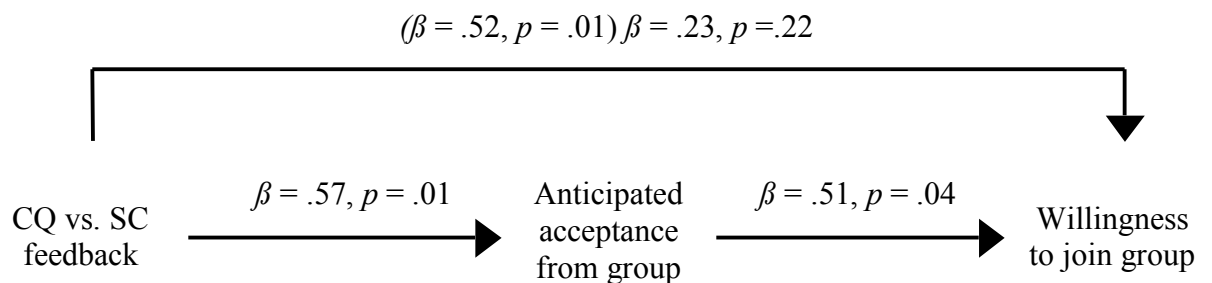
To test for mediation among the LSE participants, a series of regressions was conducted, the results of which are depicted in Figure 8. The first analysis indicated that the group that provided SC feedback was strongly preferred over the group that provided CQ feedback,  $\beta = .52$ ,  $t(55) = 2.27$ ,  $p < .014$ . The second regression analysis showed that SC feedback was also more strongly associated with acceptance from the group than was CQ feedback,  $\beta = .57$ ,  $t(55) = 2.52$ ,  $p < .007$ . For the final regression analysis, I entered both feedback and perceptions of acceptance simultaneously to predict LSEs' willingness to join the group. When both predictors were included in the regression equation, acceptance predicted participants' willingness to join the group,  $\beta = .51$ ,  $t(55) = 1.78$ ,  $p < .040$ , but feedback did not,  $\beta = .23$ ,  $t(55) = 0.81$ . Sobel's test confirmed that perceived acceptance mediated the effect of CQ versus SC feedback on LSEs' decision-making,  $z = 2.23$ ,  $p < .024$ . This analysis is

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<sup>12</sup> Because the CQ-feedback condition and the control condition do not differ in their effect on participants' willingness to join the group, it could be argued that I could combine data from these conditions to compare to the SC condition in these analyses. However, the CQ and Control conditions differ in their association with the mediator, in that CQ feedback conveys greater acceptance than does No feedback. Therefore, I chose to compare the relative effects of SC and CQ feedback in these analyses, which better represents my hypothesis. However, as I would do in simple-effects analyses, I used the error terms from the whole sample in these analyses.

consistent with my interpretation that LSEs prefer to join the group that gave them SC feedback because they associate SCs with acceptance from the group.

For HSEs, I conducted similar analyses for comparison purposes. As reported earlier, the feedback had no effect on HSEs' willingness to join the group,  $\beta = -.17, t < 1$ . The effect of feedback on anticipated acceptance was also not significant,  $\beta = .24, t < 1$ . Finally, perceptions of acceptance (controlling for feedback condition) were not significantly associated with HSEs' willingness to join the group,  $\beta = .06, t(55) = 0.17$ . Is it possible that this lack of association for HSEs is due to restricted variance in their willingness to join the group? No. HSEs showed as much variation on this variable as LSEs ( $SDs = 1.47$  and  $1.53$  respectively).



**Figure 8.** Path coefficients for the mediation model that tested whether anticipated acceptance from the group mediated the effect of domain of feedback on LSEs' willingness to join the group in Study 5.

### Discussion

In reflection of their social-acceptance schema, these results illustrate that LSE women are much more drawn to SC than CQ feedback. Being told by the group that they are “socially skilled, popular and outgoing” is interpreted as “I will definitely accept you,” whereas being told they are “accepting, supportive, and honest” leaves room for doubts. In contrast to what LSEs usually expect, the SC feedback acts as an insurance policy against risk, making them feel much safer to enter the

situation. These results offer a nice demonstration of the sociometer proposition that LSEs have a strong desire for acceptance (Leary & Baumeister, 2000), but suggest that this desire is often masked by concerns about the possibility of rejection (Murray et al., 2006).

For HSEs, feedback from the group is inconsequential. HSEs are less responsive to acceptance and therefore do not differentiate CQ feedback from SC feedback. Nor do HSEs base their social decision-making on acceptance from others, because their internal resources inoculate them against the impact of potential rejection.

Once again, these findings illustrate the greater attunement of self-esteem to SCs than CQs. HSEs' explicit self-ratings, cognitive trait-accessibility, and social decision-making do not strongly differentiate SC from CQs. In contrast, LSEs' self-ratings, cognitive accessibility, and social decision making are highly attuned to SCs, but less so to CQs. I posit that the same social value-system underlies all of these findings. LSEs' feelings of devaluation cause them to doubt their possession of SCs precisely because others value the possession of SCs. In contrast, HSEs' confidence in their relational value means that they do not differentiate between CQs and SCs because they have a less pressing need to understand their social value.

Perhaps LSEs thought that the CQ feedback was less accurate than the SC feedback. In both feedback conditions, participants thought that the group had an extremely accurate impression of them, and recognized the qualities that they had (both  $M_s = 7.81$ ). Neither the content of the feedback or participants' self-esteem moderated this assessment, all  $F_s < 1$ . Therefore, it is not the case that LSEs simply did not believe the CQ feedback. The more likely possibility is that LSEs perceived that CQ feedback was accurate, but of little import because it did not predict liking by the group. Just as when a single person is told that a potential blind date has a "great personality," I suspect that CQ feedback simply failed to assuage LSEs' concerns.

## General Discussion

### *The Sociometer is Attuned to “Superficial” SCs*

People's personal theories contend that their self-esteem is more contingent on virtue than appearances (Crocker & Wolfe, 2001) and that CQs are more important and emotionally salient than SCs, yet evidence from the present Studies 1 and 5 suggests that social acceptance is more dependent on the possession of SCs than CQs. The diverse studies in this dissertation support my sociometer account of the attunement of self-esteem to trait domains, at least when comparing the socially important domains of SCs and CQs. Not only is self-esteem more correlated with SCs than CQs, but self-esteem relates to the cognitive accessibility of SCs but not CQs, LSEs' SC self-views, but not CQ self-views, are responsive to discrepant social cues about the self, and LSEs' social behavior is affected by SC feedback but not CQ feedback.

### *Social Roles Reveal the Sociometer's “Hidden Depths”*

Although CQs are generally less related to self-esteem than SCs, they are not irrelevant to the sociometer. The extended period of interaction required to accurately assess CQs relative to SCs makes them more meaningful indicators of relational value in intimate contexts. CQs are related to interdependence: They are communal traits primarily aimed at satisfying the needs of one's relational partner. In reflection of this, the sociometers of people in romantic relationships are more attuned to their CQs than are the sociometers of people who are single. Also, women and people of East Asian descent have sociometers that are more responsive to CQs than men or people of Western descent. The results of these studies support my sociometer account of the relation between self-esteem and the self-concept. For the social roles that emphasize the importance of CQs for social acceptance, I find that people's feelings of self-worth are attuned to their beliefs about their kindness, supportiveness, and honesty.

### *The Social Value of Traits Affects Social Behavior*

The greater attunement of self-esteem to SCs than CQs is not only an “in-the head” phenomenon. Study 5 suggested that SC feedback, but not CQ feedback, caused LSEs to abandon a

self-protective social orientation and eagerly risk joining a group. Applying Schlenker and Leary's (1982) model of social anxiety to my results, I suggest that LSEs' usual social inhibitions are a consequence of their desire to create the impression that they are socially valuable (i.e., someone high in SCs), combined with their doubts that they can create that impression. By providing LSEs with SC feedback, I increased their confidence that they could create their desired impression, which alleviated anxiety and allowed them to seek the acceptance they desire. This evidence is perhaps the strongest indication of the importance of SCs for social life that I have presented in this dissertation. LSEs are exceedingly rigorous in their attention to cues of potential acceptance or rejection (Leary & Baumeister, 2000), and require concrete, unambiguous assurances that they will be accepted before they will abandon a self-protective social orientation (Anthony et al., 2007). Therefore, for LSEs to interpret the SC feedback as a strong and clear predictor of acceptance, and to use this information to make a risky social decision, speaks volumes about the social value of SCs and the strength of their association with anticipated acceptance from others.

#### *Questions That Remain*

##### *Are These Results Specific to University Students?*

The social context of a university student may emphasize the importance of SCs. Many of my participants recently moved to a new city and were looking for new friends and a romantic partner. New students frequently find themselves in initiation situations (e.g., orientation events, bars), all of which should serve to highlight SCs. One could argue that as Westerners get older and more settled, their self-esteem no longer focuses on the "superficial" SCs. I tested this possibility by assessing the self-esteem and SASI self-ratings of a sample of adults ( $N = 50$ , 76% female,  $M$  age = 48.52) who were the parents of participants in Study 2. The results mirrored those obtained for the university samples: For these middle-aged adults, SCs related to self-esteem more strongly than did CQs,  $r = .38$ ,  $p < .007$ , and  $r = .12$ ,  $ns$ , respectively.

### *Are Evolutionary Models of Social Value Compatible with These Results?*

Evolutionary models have long argued that certain traits are inherently valuable because of their influence on one's ability to successfully bear or support offspring. For example, physical attractiveness may be a marker of genetic fitness and resistance to disease, making attractive people valuable mates, whereas social status affords one's mates and interaction partners social benefits that could not otherwise be obtained (e.g., Buss & Barnes, 1986; Thornhill & Grammer, 1999). Although evolutionary models have recently begun to include predictions about the value of CQs (e.g., Fletcher et al., 1999), the vast majority of evolutionary research on social value focuses on SCs. For example, social exchange and mate selection research indicates that SCs are widely valued in a potential romantic partner, across many diverse cultures (Buss et al., 1990; Buss & Barnes, 1986). It could be argued that social context should not predict the importance of SCs. Instead, these traits should be universally valued because of their strong association with evolutionary fitness, and so self-esteem should be universally attuned to SCs. Testing this possibility was not the specific focus of my dissertation, but my results are consistent with this interpretation. Across my studies, the association between self-esteem and SCs was relatively strong and invariant. However, because my research was conducted in an independent cultural context, my studies do not rule out the possibility that there may be other social contexts (e.g., a rural Chinese village) where social value is not based on SCs and thus self-esteem is not attuned to those traits.

### *Can Trait Ambiguity and the Better-Than-Average Effect Explain These Results?*

People have a tendency to rate themselves higher than average on positive traits, and this tendency is increased when the trait is perceived to be relatively controllable and ambiguous (Alicke & Govorun, 2005). Presumably, this self-enhancement occurs because it is easier to claim responsibility for traits that are within one's control (and conversely, difficult to claim responsibility for traits that are deemed uncontrollable; Alicke, 1985), and because it is easier to claim to possess traits that have a wider range of possible behavioral exemplars (Dunning, Meyerowitz, & Holzberg, 1989). Undoubtedly, these characteristics of controllability and ambiguity differentiate SCs from CQs

(Anthony et al., 2007), which suggests that people should rate themselves higher in CQs than SCs, and this is the case (e.g., Study 2,  $M_s = 77.84$  and  $66.72$ , respectively;  $F(1, 319) = 369.87, p < .001$ ).

Can these differences in controllability and ambiguity account for my finding that LSEs rate themselves lower than HSEs in SCs, but not CQs? I believe that the ambiguity and controllability of CQs help explain why LSEs feel safe to claim CQs. These features of CQs make it both easier to protect against failure in that domain (e.g., “I’ll try harder to be more kind next time”) and easier to reject negative feedback (e.g., “She must have a strange definition of loyalty”), both of which may help people maintain positive self-views in this domain. However, ambiguity and controllability cannot explain parsimoniously why LSEs rate themselves lower than HSEs on SCs. In my view, the data that I have presented suggest that LSEs have trouble cognitively accessing their strengths (and greater ease accessing their weaknesses) in the SC domain because these traits are related to acceptance from others, and their low sociometers tell them that they apparently lack what it takes to gain acceptance.

#### *Can a Bottom-up Account Explain These Results?*

Although I examined the attunement of self-esteem to traits by proposing that chronic self-esteem predicts one’s specific self-evaluations about socially valuable traits, an alternative explanation for my results is that low self-esteem is a consequence of low standing on valuable traits that are difficult to change. Such a bottom-up account states that LSEs have low self-esteem because they actually lack SCs. In contrast, CQs are unrelated to self-esteem because they are ambiguous, easily-modified traits and hence, low-standing on CQs is less damaging to self-worth. However, research suggests that the differing self-views expressed by HSEs and LSEs are not representative of objective differences in their possession of SCs. Self-esteem does not generally predict actual popularity or social skills (Baumeister, Campbell, Krueger, & Vohs, 2003), nor is it associated with observer-rated physical attractiveness (Feingold, 1992). These results illustrate the fact that people’s self-knowledge--both global (e.g., self-esteem) and specific (e.g., self-conceptions)--is biased and out-of-touch with reality (e.g., Tice & Wallace, 2003). Therefore, the only plausible bottom-up

interpretation of my results is that low self-esteem results from the belief that one lacks SCs. But if self-esteem is not related to actual differences in the possession of SCs, where do LSEs' and HSEs' differing beliefs come from?

One possibility is that self-esteem does not predict the actual SCs of university age people, but it did predict SCs at some point: LSEs were "ugly ducklings," and their self-concepts have not caught up with their new physical and social standing. Although some evidence suggests that self-views are indeed more accurate (i.e., similar to peers' and teachers' ratings) prior to age 12 than they are in later life (Kenny, 1994), the objective SCs of children are largely unrelated to self-esteem (Baumeister et al., 2003). In contrast to this bottom-up line of thinking, I adopt a top-down account of the association between self-esteem and self-concept. Top-down accounts suggest that the prism of global self-worth distorts the self-concept, such that feeling worthy causes people to believe they possess traits, whereas feeling less worthy causes people to doubt their possession of positive qualities (see Brown, Dutton, & Cook, 2001). However, as I will discuss shortly, I believe that self-esteem does not distort all self-views equally.

#### *Can Contingency Theory Explain These Results?*

LSEs are more likely than HSEs to report that their self-esteem is contingent on external, less controllable domains such as appearance (Crocker & Wolfe, 2001). One implication of this finding is that basing one's self-worth on external domains that are out of one's control makes it more difficult to satisfy one's contingencies, resulting in lower and more tenuous self-esteem. It is possible that because LSEs are more contingent than HSEs on SCs such as appearance, they are more attentive to "failures" in that domain (e.g., an unfavourable social comparison or an unkind remark) and hence have lower SC self-ratings than HSEs. Also, LSEs' contingency on SCs may cause them to be especially elated when given positive SC feedback, which in turn may cause them to be more interested in joining the group that provided such feedback. But this interpretation leaves unanswered the question of where contingency on SCs came from in the first place. My model specifically addresses this question by positing that acceptance grants SCs their interpersonal power and hence



causes self-esteem to be more contingent on SCs than CQs. By positing acceptance as the pivotal determinant of self-esteem contingencies within social roles, I am offering a very social-psychological interpretation of self-esteem contingency theory. Moreover, because people's personal theories about the importance and salience of CQs over SCs contradicts the actual attunement of self-esteem to SCs over CQs, my results are consistent with previous research suggesting that people are not always aware of the extent to which their self-esteem is contingent on what other people value (e.g., Leary et al., 2003).

### *Implications of These Results*

#### *The Nature of LSEs' Self-Doubts*

To my knowledge, the results of this dissertation are the first to show that self-esteem is not evenly associated with all self-concept domains. LSEs are not more likely than HSEs to think they are relatively weak on all traits; on CQs, LSEs hold self-views that are very positive, nearly as positive as those of HSEs. This finding probably was not obtained previously because, before the SASI, measures of self-concept and of domain-specific self-esteem neglected to measure CQs (e.g., Fleming & Courtney, 1984; Helmreich & Stapp, 1974; Marsh, Smith, & Barnes, 1983; Pelham & Swann, 1989).

The finding that self-esteem is strongly related to the self-concept only for SCs calls for a modification in the top-down account of self-esteem, best articulated by Brown (e.g., Brown et al., 2001). Brown's top-down model proposed that global self-esteem influences the content of the self-concept universally: HSEs' strong feelings of self-worth cause them to believe that they possess many desirable qualities, whereas LSEs' doubts about their worth cause them to believe that they lack desirable qualities. My results suggest that the prism of global self-worth does not distort all aspects of the self-concept equally. Instead, I have tried to integrate the top-down view with sociometer theory, leading me to predict that actual social value determines the specific aspects of the self-concept that become the focus of the distorting prism of self-esteem. That prism focuses on traits that are related to social acceptance, and hence, focuses on SCs more than CQs (for Westerners at least).

### *Extending Sociometer Theory*

In this dissertation, I have extended sociometer theory in three main ways. The first is methodological: I have shown the value of examining sociometer predictions not only in self-ratings, but in the cognitive accessibility of strengths and weaknesses and in social-decision-making. Second, I examined the consequences of chronic high- or low-self-esteem for people's self-beliefs and social motivations, an aspect of sociometer theory that previously had received little empirical attention. Third, I have offered a very social-psychological account of what influences the sociometer, and in turn, the self-concept. Regardless of the original determinants of one's self-concept or self-esteem, their interconnection is maintained by the social roles that one occupies and the daily task of garnering acceptance from others.

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