

Through the Tinted Looking Glass: Evaluating Images of the Self and Others

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Abstract

People are motivated to maintain a positive and distinct view of the self as an individual (Sedikides, 1993) and as a member of a social group (Tajfel, 1979). This motive to maintain positive self-esteem influences one's self-perceptions and social perceptions (Stevens & Fiske, 1995; Beaugard & Dunning, 1998). This study examined the effects of a threat to participants' social identity (N=120) in terms of construals of social identity as either positive or negative, the opportunity to self-affirm on a relevant or irrelevant dimension, and global personal trait self-esteem on participants' cognitive, and self-evaluative responses. As expected, high trait self-esteem was associated with higher personal and collective state esteem. Analyses of variance also revealed that the type of affirmation had differential effects on state self-esteem depending on levels of trait self-esteem. Although participants showed some evidence of adopting cognitive strategies for self-enhancement, they did not result in increased personal or collective esteem. In fact, the centrality of their collective identity decreased after the self-enhancement opportunity. Implications and limitations of these findings are discussed.

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“Mirror, mirror on the wall, who’s the fairest of them all?”

People generally search for positive feedback pertaining to the self in order to maintain a positive self-image. In addition, they often impose filters on incoming information about themselves that distort it in a positive way (Taylor & Brown, 1988). In fact, the desire to see the self in a favorable manner appears to be even stronger than the desire to obtain accurate assessments of the self (Sedikides, 1993 as cited in Branscombe & Wann, 1994). Therefore, people generally do not seek external feedback (e.g. a looking glass image) that accurately reflects their self-image, but rather a *fair* looking glass that displays positive images of the self which serve to protect their personal self-esteem.

Self-Concept

One’s self-concept is defined as “the totality of the individual’s thoughts and feelings having reference to himself as an object” (Rosenberg, 1979 as cited in Brewer & Crano, 1994). This set of thoughts and feelings pertaining to the self can be divided into cognitive, evaluative, and behavioral components (Brewer & Crano, 1994).

The cognitive component (e.g. Who am I?) depends on an individual’s unique self information-processing system that influences one’s reception to incoming information pertaining to the self. These self-schemas are defined as “cognitive generalizations about the self, derived from past experience, that organize and guide the processing of self-related information” (Markus, 1977). Individual differences exist in the perceived centrality of any specific trait to one’s self-concept. Therefore, each individual may interpret the same feedback differently due to the mediating effects of the self-schema in

the processing of such information. Since feedback pertaining to the self depends on the observer's construals of that feedback, there may be error associated with the construal in that it may represent a distortion of the actual feedback. Heider's (1958) adaptation of Brunswik's lens model of object perception to account for social perception describes the various sources of distortion that occur during both the mediation and constructive process in more detail (Shaver, 1977). A perceiver's own needs and motives, as well as the impact of dynamic stimulus information, influence one's social perception (Berry, Misovich, Kean, & Baron, 1992). For example, the need to simplify one's perceptual world and the motivation to maintain a positive self-concept may lead to categorization or stereotyping (Shaver, 1977). Furthermore, one's categorization and stereotyping of group members influences one's overall thoughts and feelings about the self both as an individual and as a group member.

Personal feedback may influence the salience of the self as either an individual or as a member of a social group. The social identity theory (Tajfel, 1979) distinguishes between two different aspects of the self-concept: personal and social identity. Personal identity refers to "self-descriptions that differentiate the individual from other members of his or her social groups" (Brewer & Crano, 1994, p. 448). Social identity is defined by Tajfel (1979) as "that part of an individual's self-concept which derives from (their) knowledge of (their) membership of a social group (or groups) together with the value and emotional significance attached to that membership" (Tajfel, 1979, p.63).

Self-categorization theory (Turner, Hogg, Oakes, Reicher, & Wetherell, 1987) postulates that people categorize themselves as individuals (personal self-categorization)

and also as group members (social self-categorization). Since people belong to many groups which affect who they are or their sense of identity, they can subjectively categorize social groups according to those they belong to (in-groups) and those they do not belong to (out-groups). The salience of these self-categorizations is influenced by environmental factors that facilitate certain social comparisons. For example, a personal self-categorization may be made salient when the individual is in a situation that involves comparing herself with other in-group members (e.g. a student compares herself to other students in her class). On the other hand, contexts that involve comparisons between in-group and out-group members cause social self-categorizations to become more salient (Turner et al., 1987). For example, a student's sense of the self as a Carleton University student may be made salient when they are in a situation that involves a comparison between Carleton University students and students from another university. Thus, a person's self-concept varies due to the level of identity that is made salient (Brewer, 1991). For example, personal identity, the "I", leads to different social comparisons than social identity, the "We". These, in turn, have differential effects on one's self-evaluations and one's global self-esteem (Brewer, 1991).

Social identity theory (SIT) assumes that people are driven by psychological motives to have a positive and distinct social identity (Tajfel, 1979). An individual's positive or negative feelings of self-worth, referred to as self-esteem, make up the evaluative component of the self-concept (e.g. How do I feel about myself?) (Brewer & Crano, 1994; Campbell, Trapnell, Heine, Katz, Lavalley, & Lehman, 1996). This self-esteem can also reflect the personal versus the social self. Based on cognitive processes

and affect, people will act in ways to enhance their identity via consistency or self-bolstering.

One's previous behaviors and attitudes also influence their thoughts and feelings toward the self, making up the behavioural component of the self-concept. Self-perception theory (Bem, 1972) asserts that people's attitudes (and other internal states) are based on their observations of their own behaviours as well as the contexts that influenced these behaviours. Traditional theories viewed attitudes as being enduring learned predispositions (e.g. Allport, 1935; McGuire, 1969 in Chaiken & Baldwin, 1981). Other empirical studies have supported the notion that a person's overt behaviour influences their self-descriptions (Jones, Rhodewalt, Berglas, & Skelton, 1981). Self-perception research has even demonstrated that external cues may be so influential on experimentally induced attitudes that prior attitudes are often not salient (Bem & McConnell, 1970 in Chaiken & Baldwin, 1981). This seemingly stronger impact of external cues on attitudes in comparison to prior attitudes as evidenced in research studies may be related to the novelty of the tasks or attitude topics that are used. The three components of the self-concept are interrelated. For example, self-esteem depends on the success of cognitions and cognitive processing attempts to filter information in such a way to maintain positive self-esteem. Of particular interest to the present research is how self-esteem operates to invoke particular cognitive processes in order to maintain or enhance the individual's self-esteem in an intergroup context.

Personal Self-esteem

Much of the focus of past empirical research on self-esteem in the intergroup context has been on self-evaluations at the level of personal identity. It is necessary to distinguish between state and trait self-esteem since the former is more likely to demonstrate situationally induced fluctuations that reflect salient environmental feedback (Campbell, Trapnell, Heine, Katz, Lavalley, & Lehman, 1996). Salient positive feedback pertaining to the self as an individual leads to increased personal state self-esteem whereas negative threats to one's personal identity result in decreased personal state self-esteem.

One's personal trait self-esteem (e.g. Generally, I feel good about myself) is the result of all previous self-evaluations whereas one's personal state self-esteem (e.g. Right now, I feel good about myself) is the result of one's self-evaluation at a specific moment (Rubin & Hewstone, 1998). A lifetime of observing positive personal feedback as opposed to negative personal feedback generally leads to higher personal trait self-esteem (Rubin & Hewstone, 1998). In fact, some researchers have found that overly positive personal trait self-esteem or illusory feelings of positive self-worth overall may be adaptive (Taylor & Brown, 1988).

Conversely, personal trait self-esteem can also influence personal state self-esteem since a person's overall feelings about the self may moderate the influence of environmental factors on one's evaluative view of the self at any given moment. Since one's personal trait self-esteem can be regarded as the average of a lifetime of previous state self-esteem (Rubin & Hewstone, 1998), those with high overall personal trait self-

esteem should generally demonstrate higher personal state self-esteem than those with low overall trait self-esteem at any given time. Since those with a generally positive view of the self have better access to positive information about the self than those with more negative trait self-esteem, they are less likely to be as influenced by an instance of negative personal feedback than those with low trait self-esteem. In sum, high trait self-esteem may buffer an individual from the effects of an instance of negative feedback since they are more likely to assimilate negative information into their existing self-identity rather than to accommodate by accepting a single piece of information as self-relevant (Eiser & van der Plight, 1984). Even in an intergroup context in which the social identity is most salient, past research has consistently shown that individuals with high personal self-esteem are most likely to display behaviours and perceptual responses (intergroup differentiation) demonstrating a favorable in-group bias (Aberson, Healy & Romero, 2000; Rubin & Hewstone, 1998), particularly when the status of their group is threatened (Branscombe & Wann, 1994; Brown, Collins & Schmidt, 1988; Crocker, Thompson, McGraw & Ingerman, 1987; Long & Spears, 1998; Long, Spears & Manstead, 1994; Verkutyen, 1997). Thus, members of stigmatized groups who hold themselves in high esteem may be most motivated to establish a positive in-group identity.

Along these lines, Tesser's self-evaluation maintenance theory (1988) suggests that, in order to maintain a positive self-concept when one receives negative feedback, one can employ several different strategies. For example, one could avoid social comparisons which will lead to decreased feelings of self-worth or one could reject the

negative feedback information. People may also respond to a salient threat to their identity by temporarily decreasing the centrality of that specific aspect of their identity to their self-concept in order to reduce dissonance between negative feedback about the self and a positive self-concept.

Self-affirmation

Cognitive dissonance theory suggests that an unpleasant state occurs when there is inconsistency between one's beliefs and actions (Festinger, 1957). Furthermore, this theory contends that people are motivated to reduce this dissonance by changing either their belief or their action (Brewer & Crano, 1994). However, dissonance reduction may be viewed as an effect as well as a cause of dissonance reduction (Gibbons, Eggleston, & Benthin, 1997). In line with cognitive dissonance theory, it is proposed that people may employ various self-enhancement strategies in order to reduce the dissonance. In addition, these social self-enhancement strategies may also be used to allow them to maintain a positive social identity. Previous research has shown that the employment of self-enhancement strategies to reduce dissonance have maintained self-esteem in relation to personal identity. Of particular interest to the present study is how these self-enhancement strategies can be used to maintain a positive social identity.

Steele's self-affirmation model, a revision to cognitive dissonance theory, proposes that it is not the dissonance that is disturbing to an individual but its threat to one's self-integrity (Steele & Lui, 1983). The logic of self-affirmation theory contends that self-affirming thoughts about the self can reduce the dissonance activated by a negative threat of any given feedback to one's self-esteem. Empirical evidence suggests

that opportunities to self-affirm may act as a buffer to self-esteem and therefore lead to a decrease in the employment of other self-enhancement techniques such as spreading of alternatives following decision-making tasks as negative evaluations of members of a stereotyped group (Fein & Spencer, 1997). If people are not provided with an opportunity to self-affirm, they may be motivated to temporarily decrease the centrality of a threatened aspect of personal identity to the self-concept in order to maintain a positive view of the self, or to employ self-enhancement techniques such as social comparison with lower status in-group members (downward social comparison).

There is considerable evidence that self-affirming thoughts that are either related or unrelated to the original threat directly serve to alleviate the self-threat dissonance (Steele & Lui, 1983). While intuitively, one might think that affirmation of the self along the threatened dimension would be most effective in alleviating distress, some empirical studies have found that people favored affirmations that were unrelated to an experimentally induced self-threat (Aronson, Blanton, & Cooper, 1995). Aronson et al. (1995) proposed that this preference for unrelated self-affirmation may occur since this may enable people to maintain their self-concepts by identifying with aspects of the self that allow them to disidentify with the aspects that their dissonant behavior violated.

Just as self-affirmation opportunities can lead to increased state self-esteem, individual differences in self-affirmation due to one's general view of the self or their global self-esteem may also exist. For example, those with higher self-esteem have better access to more positive self-affirming information and are also likely to feel less threatened by threats to their self-image than those with low self-esteem (Heine &

Lehman, 1997; Steele et al., 1993). It is therefore proposed that the effectiveness of affirmation on a dimension that is relevant or irrelevant to the threat may depend on a person's trait self-esteem. People with high self-esteem will be more resilient to threats to their identity, as they will presumably have more resources from which to derive self-affirming insights. Indeed, Steele et al. (1993) found that following negative false feedback, low self-esteem individuals were more affected by the threat to their self-integrity, hence adopting compensatory responses. Thus, support for self-affirmation processes is consistent with theoretical expectations stemming from Social Identity Theory regarding the responses of high versus low self-esteem individuals who experience a threat to their group's status.

Social self-esteem

A person's perception of the status of a social group, that is their evaluation of their social identity, depends on how the in-group compares to out-groups. It has been argued that this process of comparing social groups, derived from Festinger's theory of social comparison (1954), is driven by a need for self-enhancement and self-evaluation (Abrams & Hogg, 1988). Social comparison theory assumes that people are especially driven to evaluate themselves when they are feeling uncertain about who they are (Brewer & Crano, 1994). The primary motive of social comparison is to achieve a good self-image through positive social identity (Brewer & Crano, 1994).

Just as feedback pertaining to one's personal identity affects personal self-esteem, feedback in relation to a particular social in-group also influences overall and immediate evaluations of the self as a member of that social group (collective self-esteem). Self-

esteem measures that are employed in an experiment must relate to the level of identity that is made salient in the experiment. For example, according to social identity theory, group members are seeking groups with distinct and positive identities, therefore they are seeking to maintain a positive collective self-esteem as group members, rather than as individuals (Rubin & Hewstone, 1998). Furthermore, theories of stigma also indicate that people adopt similar strategies to process information to achieve a positive social identity, as they do to achieve a positive personal identity (Crocker & Major, 1989).

As with personal self-esteem, collective trait self-esteem is also the product of a series of feedback pertaining to one's collective state self-esteem (Rubin & Hewstone, 1998). Since people want to maintain positive and distinct social identities, salient positive feedback pertaining to a specific social in-group should generally lead to temporarily increased specific collective self-esteem whereas salient negative feedback about one's in-group should also result in short-term decreases in specific collective self-esteem.

Previous research has shown that group membership can be a source for enhanced collective trait self-esteem (Stevens & Fiske, 1995). Indeed, according to social identity theory, membership in positively construed social groups should generally result in increased collective self-esteem whereas being member of a negative social groups should lead to decreased collective trait self-esteem. However, empirical research examining the relation between membership in a stigmatized social group and collective self-esteem has not entirely supported these predictions (Crocker & Major, 1989), in that members of stigmatized or negatively construed social groups do not necessarily

demonstrate low self-esteem. (Crocker & Major, 1989). Crocker and Major (1989) proposed that one's construal of negative feedback as being the result of prejudice against one's group can be self-protective. First of all, it may protect the individual's global view of the self since it allows one to dismiss the negative feedback as being due to prejudice against the group. Secondly, negative feedback due to perceived discrimination motivates one to seek out in-group members to compare themselves to. Social comparison with in-group members of a stigmatized group is more likely to result in a favorable self-image than comparing the self to members of the advantaged out-group (Crocker & Major, 1989). Perhaps the interaction with other disadvantaged in-group members in itself is also self-protective by providing them with in-group support and a sense of affiliation (Brewer, 1991).

It is suggested that people's responses regarding stigma are similarly motivated by a need for self-affirmation, but at the level of social identity. Being a member of a stigmatized group may not reduce self-esteem because, as with personal self-esteem, various strategies may be employed in order to protect a threatened collective self-image.

Social Perceptions

People are motivated to preserve self-esteem by employing various self-enhancement strategies that may involve changes in their social perceptions as well as their self-perceptions (Beauregard & Dunning, 1998). At the level of personal identity, self-esteem threats motivate one to seek both positive comparisons as well as distinctiveness in relation to others (Tesser, 1986 as cited in Forgas & Fielder, 1996). Similarly, theories of stigma indicate that people adopt strategies to process information

that is inconsistent with a positive social identity (Crocker & Major, 1989). In fact, even members of groups based on trivial criteria employ self-enhancement strategies in order to maintain a positive social identity (Tajfel, 1970).

Cognitive as well as motivational principles can both be used to explain the cognitive and behavioral strategies commonly found in the minimal group paradigm to enhance the status of the in-group (Tajfel, 1970). According to cognitive principles, categories may increase one's perception of intergroup differences while reducing one's perception of within-group differences (Turner et al., 1987). Secondly, people's desire to achieve a positive social identity may motivate them to accentuate the differences between an in-group and out-group (Tajfel, 1982). Furthermore, decreased self-esteem is expected to lead to an increase in intergroup discrimination, and positive discrimination between an in-group and out-group allegedly results in increased self-esteem (Tajfel & Forgas, 1981).

In line with this, it has been shown that experimentally induced threats to self-esteem activate more judgmental contrast between the in-group and the out-group than positive self-esteem feedback conditions (Beauregard and Dunning, 1998).

Different methods of self-enhancement may be used depending on one's level of personal trait self-esteem. Some have argued that those with high personal trait self-esteem engage in more direct methods of self-enhancement than those with low personal trait self-esteem (Brown, Collins, & Schmidt, 1988). For example, Brown et al. (1988) conducted an experiment that examined the relationship between self-esteem and self-enhancement biases in the minimal group paradigm. To assess the differential use of self-

enhancement strategies, participants compared their own group's solution with an out-group's solution (own-group/out-group) or they compared the other in-group's solution with that of the out-group. Brown et al. (1988) explained that favoring one's own-group over an out-group represents a direct form of self-enhancement since it directly favors the self as a member of the own-group. On the other hand, a positive bias toward an in-group one has not participated in over the out-group represented an indirect form of self-enhancement (Brown et al. 1988). Self-esteem was related to the methods used to maintain a positive self-concept in that high self-esteem subjects generally enhanced their self-worth directly by favoring the in-group whereas low self-esteem participants are more likely to devalue the out-group in both conditions, thereby reflecting the use of an indirect method of self-enhancement (Brown et al., 1988).

A second experiment conducted by Brown and colleagues (1988) examined the effects of experimentally induced positive and negative feedback on high and low self-esteem participants' use of self-enhancement techniques. Results indicated that high self-esteem participants demonstrated more direct self-enhancement and low self-esteem participants showed more devaluation of the outgroup when they had received negative rather than positive feedback. Thus, enhancement strategies were a function of self-esteem. Furthermore, these results are consistent with self-affirmation theories of dissonance that suggest that it is the threat to one's self-worth that motivates people to employ self-esteem maintenance strategies.

Fein and Spencer (1997) found empirical evidence indicating that self-affirmation and self-image maintenance processes are related to stereotyping and

prejudice. Results indicated that participants that had no opportunity to self-affirm tended to give more negative evaluations of the out-group targets than participants in the affirmation conditions. This evidence supports the idea that positive self-affirmation opportunities enhance one's global view of the self, reducing the need to employ a self-enhancement technique, as evidenced by the decrease in participants' derogation of members of the stereotyped group. A second study further indicated that negative feedback had a negative effect on participants' evaluations of the target, particularly when the target was from a stereotyped out-group. Based on the results of Fein and Spencer's studies (1997), it appears that positive (e.g. a self-affirmation opportunity) or negative (e.g. bogus feedback) personal feedback have an effect on evaluations and stereotyping of others. They conclude that the employment of self-image maintenance strategies either via self-affirmation or the derogation of others appears to serve the purpose of enhancing self-esteem (Fein & Spencer, 1997).

Perceptions of the homogeneity of the in-group versus out-group may also be employed as a self-image maintenance strategy. One's construal of the in-group as either positive or negative was expected to influence perceptions of in-group and out-group homogeneity. Perceived in-group homogeneity may have a positive function for in-group members (Doosje, Ellemers, & Spears, 1995). For example, Doosje, Ellemers, & Spears (1995) found that participants' identification with the social group was related to an exaggeration of in-group homogeneity, although this was not evident when the group was positively construed. This pattern of findings suggests that when the threatened

dimension is central to the self, individuals may achieve self-enhancement through a sense of solidarity and common identity.

The Present Study

The motive to maintain positive self-esteem influences one's self-evaluations and social perceptions (Stevens & Fiske, 1995). Moreover, when one's self-concept is threatened, self-affirmation seeking processes are activated (Steele, 1988). However, one's general view of the self may influence the method of self-enhancement that will be employed (Brown, Collins, & Schmidt, 1988). Hence, the goal of this research is to study the interactive effects of a threat to individuals' social identity in terms of construals of social identity as either positive or negative, the opportunity to self-affirm on a relevant or irrelevant dimension, and global personal trait self-esteem on people's cognitive, and self-evaluative responses.

Hypotheses

In summary, this study was designed to test the following hypotheses:

Self-Perceptions

- 1) Higher trait self-esteem was expected to be associated with higher levels of state and collective self-esteem.
- 2) A negatively-construed social identity would result in decreased collective and state self-esteem scores. However, this effect would be alleviated by opportunities to self-affirm.
- 3) The effectiveness of affirmation on a relevant versus irrelevant dimension would depend on a person's trait self-esteem. Irrelevant self-affirmation would especially

benefit those with low self-esteem whereas relevant self-affirmation would be more beneficial for those with high trait self-esteem.

Social perceptions

- 1) A negatively-construed social identity would result in greater efforts to use in-group enhancement or out-group derogation as a method of self-enhancement when there was no self-affirmation opportunity.
- 2) Those with high trait self-esteem were expected to give more positive evaluations to in-group members than those with low trait self-esteem. In contrast, low trait self-esteem was predicted to be associated with greater derogation of the out-group, when the identity was negative and there was no self-affirmation opportunity.

Method

Participants

Male and female students (N=120) were recruited from Introductory Psychology at Carleton University (CU) to take part in a study on workplace opportunities and treatment. Only students who were full-time and perceived having a choice¹ to attend Carleton University (i.e., scored 2 or greater on a self-report scale ranging from 0 (no choice) to 4 (entirely my choice)) were included in the final sample (42 men and 78 women).

Procedure

Participants recruited from Introductory Psychology were informed that this study examined ways of responding to workplace opportunities and treatment (see Appendix A). Participants were run in small groups and each group was randomly assigned to an

experimental condition. Upon arrival, participants were told that the study concerned students' university affiliation and how this is treated in the workplace. After completing an informed consent (see Appendix B), they were asked to fill out a short questionnaire containing personal information related to their Carleton affiliation, attendance at other universities, ethnicity, sex, and age (see Appendix C) as well as their personal trait self-esteem (see Appendix D).

Participants' social identity as a Carleton student was then made salient (see Appendix E). For 3 of the 4 experimental conditions, this identity was negatively construed, while the remaining group was given a positive construal. This was done by playing an audio-tape of an interview with a researcher who had allegedly conducted a study on perceptions of students from their university. More specifically, in the negative construal condition, students were told that because average admission grades were low, many students were unable to complete their degrees because they were "less competent, smart, and less hard-working than students who were able to go to other universities". Also good students would get scholarships to go elsewhere, while many students at CU worked part-time to afford their education, meaning "that many CU students have higher priorities than their studies, and so they are perceived as not very serious ... [and] lacking in intellectual collegiality, challenge and stimulation". Finally, they were told that due to limited resources "CU students are perceived to be ill-prepared ... [and] unfamiliar with cutting edge technologies and techniques. As a result, CU students are viewed as needing more on-the-job training, and to be lacking in innovative ideas and skills".

The manipulation of self-affirmation was then established for 2 of the negative identity conditions (see Appendix F and G). Using Steele and Lui's paradigm, participants were randomly assigned to self-affirm on either an irrelevant (see Appendix F) or a relevant dimension (Appendix G) in relation to their social identity as a Carleton student. Participants were presented with a list of 15 values such as ("A comfortable life", "A sense of accomplishment") and then asked to pick out the value that they thought was most important to them either as a member of the relevant social group ("as a student from Carleton University") or irrelevant social group ("as a person who lives on-campus or off-campus"). Participants were then asked to write about that value, why they chose it, and why they thought that it was important to the corresponding social group.

A baseline comparison group provided with a positive construal of this identity was included. The positive construal described the same dimensions of the university, but participants were given a positive interpretation. In particular, although they were again told that a student's grades may not be as high at admission, "CU gives a student the opportunity to do well at university to acquire a degree". As a result, "CU students are viewed as resilient, committed, and hard-working, because they have to do well to prove themselves". With regard to funding and part-time work, the positive construal emphasized "a flexible scheduling system that allows many students to attend This in itself contributes to the diversity of students and therefore ideas and experiences students get at CU. It also means that CU students have to be extremely committed and serious about their studies". Finally, the limited resources were also spun to students' advantage,

in that "students are trained to be resourceful ... [and] well-prepared to work with the constrained resources of many small organizations and institutions".

Participants were then asked to complete a set of questionnaires assessing their social identity as Carleton students (Appendix H), trait self-esteem (Appendix I), and state self-esteem (Appendix J). This was followed by the measures that reflected participants' opportunity to use cognitive self-enhancement strategies, namely their perceptions of stereotypes of in-group (Appendix K) and out-group² members (Appendix M), and their estimates of the perceived homogeneity of the in-group (Appendix L) and out-group members (Appendix N). Lastly, participants' post self-enhancement state self-esteem, and collective self-esteem (Appendix O) were measured.

Finally, participants were debriefed (see Appendix P). For negative identity participants, this involved describing the goals of the study, but as well, an active "inoculation" session in which the experimenter presented each of the negative attributes, and encouraged participants to brainstorm positive interpretations of the attribute, followed by an explicit positive reconstrual. Next, negative identity participants were asked to perform a small task requiring them to write about their most positive experience as a student at Carleton University in order to increase their feelings of self-worth (see Appendix Q). All participants received a brief write-up describing the positive benefits to being a student from Carleton derived from the most recent McLean's survey on Canadian universities and a report from the president (see Appendix R) of Carleton University. Lastly, they were given their experimental credit and a list of contact names (Appendix S).

Measures

Personal Trait Self-esteem. Participants' self-esteem was measured before their social identity as a Carleton student was manipulated. A modified version of the 10-item Rosenberg Self-Esteem Scale (Rosenberg, 1965) was used to assess participants' global trait self-esteem (see Appendix D). The Rosenberg Self-Esteem Scale was modified slightly by replacing the four-point scale to a seven-point scale since others have attributed the scale's insensitivity as being due to minimal variability of responses (Heatherton & Polivy, 1991). Participants were asked to rate how "true of me in general" each item was on a scale of -3 ("Strongly untrue of me in general") to 3 ("Strongly true of me in general") (see Appendix I). Alpha levels larger than 0.85 are generally found for the Rosenberg Self-Esteem Scale, indicating good inter-item reliability (Bagley, Bolitho, & Bertrand, 1997). Many empirical studies provide evidence that support the unidimensionality of the scale (Gray-Little; O'Brien, 1985; Rosenberg, 1965; Vallieres & Vallerand, 1990; Williams, & Hancock, 1997). Other studies have also demonstrated that the Rosenberg Self-Esteem Scale has adequate internal reliability (Byrne, 1983) as well as construct validity (O'Brien, 1985; Wylie, 1989) and convergent validity (O'Brien, 1985).

Responses were averaged (with appropriate items reverse coded) to create an index on which higher scores reflected more positive trait self-esteem (Cronbach's $\alpha=.91$). A median split (Median=1.85) was used to divide participants into low or high trait self-esteem for analyses of variance. The number of participants with low or high trait self-esteem was relatively equal across the social identity conditions.

Identity construal manipulation checks. To assess the effectiveness of the manipulation of a positive or negative identity, participants rated along 7-point bipolar scales (ranging from 1 to 7), a series of characteristics that “research indicates that CU students are perceived to be” (Appendix T). These characteristics included competent/incompetent, well-trained/poorly trained, resourceful/unaware of alternatives, ill-prepared/well-prepared for workforce, lacking/full of innovative ideas, and not/committed to studies.

Self-Affirmation. Participants were presented with a modified list of 15 values such as (“A comfortable life”, “A sense of accomplishment”) from the Rokeach (1967) value survey and then asked to pick out the value that they thought was most important to them as a member of either the irrelevant social group (a person who lives in Ottawa”) or the relevant (“as a student from Carleton University”) one. Participants were then asked to write about that value, why they chose it, and why they thought that it was important to the corresponding social group. Modal choices for both the relevant and irrelevant self-affirmation groups were the values “happiness” ($n=12$ for irrelevant; $n=6$ for relevant), and “a sense of accomplishment” ($n=5$ for irrelevant; $n=6$ for relevant). None of the remaining values was selected consistently by participants in either self-affirmation condition.

Social Identity. Social identity as a Carleton student (Appendix H) was assessed by using a modified version of the Multidimensional Inventory of Black Identity (Sellers, Rowlet, Chavous, Shelton, & Smith, 1997). The original scale measured stable dimensions of racial identity, three of which were of interest in the present study:

centrality and private and, public self-regard. The identity centrality subscale consisted of 8 items measuring the centrality of participants' social identity as Carleton students (e.g., "In general, being a student from Carleton University is an important part of my self-image). The private self-regard scale consisted of 6 items that assessed the extent to which participants had positive feelings toward Carleton students (e.g., "I feel good about being a student from Carleton University"). Six items pertaining to participants' impressions of the positive feelings that others have toward Carleton students made up the public regard subscale (e.g., "Overall, Carleton University students are considered good by others"). There is empirical evidence from a sample of 474 African American college students that supports both the validity and reliability of the Multidimensional Inventory of Black Identity (Sellers et al., 1997).

In the present study, participants' social identity was measured both before and after their self-enhancement opportunities. Participants were asked to rate their agreement with each item on a 7-point scale ranging from -3 (Strongly disagree) to +3 (Strongly agree). Subscales reflecting centrality (Cronbach's $\alpha=.67$), private regard (Cronbach's $\alpha=.89$) and public regard (Cronbach's $\alpha=.85$) were created by averaging relevant responses, such that higher scores reflected more positive collective identity.

The premeasure of social identity was based on all items making up each of the three social identity subscales. However, in order to measure post self-enhancement social identity, three items were selected from each of the three subscales. Participants' ratings of the three items from each of the centrality (Cronbach's $\alpha=.53$), private regard (Cronbach's $\alpha=.70$) and public regard (Cronbach's $\alpha=.75$) subscales were averaged

(reverse coded when appropriate) such that higher scores reflected more positive collective identity. For the pre-post comparisons, only the comparable items from the pre-measure were used.

State Self-Esteem. A modified version of the State Self-Esteem Scale (Heatherton & Polivy, 1991), a 20-item self-report scale that measured participants' self-esteem "at the moment" (Appendix J) was used. The State Self-Esteem Scale (Heatherton & Polivy, 1991) consists of three subscales that measure performance self-esteem ("I feel as smart as others"), social self-esteem ("I feel inferior to others at this moment") and appearance self-esteem ("I feel that others respect and admire me"). Heatherton and Polivy (1991) provide evidence for the construct validity of the State Self-Esteem Scale.

In order to measure how participants' felt about themselves prior to and following their self-enhancement opportunities, two forms of the State Self-Esteem Scale were created. Each form contained 8 items with a balanced number of positive and negative items that were randomly selected from the original scale. Respondents were randomly assigned to receiving one of the two forms pre or post, to ensure there were no systematic differences at the two measurement times as a function of differences in item sets. Respondents were asked to rate how true each item was of them at the moment according to a 7-point scale ranging from -3 ("Strongly untrue of me") to 3 ("Strongly true of me"). The original 5-point scale was modified to maintain consistency across comparable questionnaires.

Participants' ratings of the items from each form of the performance (Cronbach's alphas ranged from .69 to .78), social (Cronbach's alpha's ranged from .46 to .81), and

appearance (only one item in each form) subscales were averaged (reverse coded when appropriate) such that higher scores reflected more positive state self-esteem on these dimensions.

Stereotypes. Participants were asked to rate their general impression of in-group members (students from Carleton University) as well as out-group members (students from another university, in particular Queen's University) to assess their stereotyping in relation to the in-group (Appendix K) and out-group (Appendix M). Participants were presented with a list of adjectives such as “Intelligent”, “Lazy”, and “Hard-working” and asked to indicate the extent to which they thought each characteristic was descriptive of the typical member of that social group on a 5-point scale ranging from 0 (“Not at all descriptive”) to 4 (“Extremely descriptive”).

Ratings of the in-group were subjected to a principle components analysis with a varimax rotation. The participants' ratings of the in-group were used for the factor analysis since this was the primary group of interest. Based on a scree test, two factors emerged. These 2 factors accounted for 34.15% of the total explained variance in the responses. Factor scores were created by unit weighting and averaging items with loadings greater than .45; where an item loaded on two factors, it was assigned to the factor that was most conceptually relevant (Table 1). Consistent with the stereotype manipulation, the first factor was comprised of 15 traits reflecting perceptions of competence (including intelligent, driven to get things done, not interested in learning, competent, committed to work, ill-prepared for work, lazy, responsible, unmotivated, innovative, intellectually dull, skilled, hard-working, easily influenced, serious)

(Cronbach's $\alpha=.91$). The second factor was not manipulated in the stereotype depictions, and reflected 7 traits reflecting sociability (likable, resourceful, social, flexible, interesting to talk to, adaptable, easy-going) (Cronbach's $\alpha=.80$).

Table 1

Factor Analysis Item Loadings for In-Group Stereotype Ratings

Factor	Item	Factor Loading	Cronbach's α
Competence			.91
	Intelligent	.67	
	Driven to get things done	.64	
	Not interested in learning	-.72	
	Competent	.58	
	Committed to work	.57	
	Ill-prepared for work	-.76	
	Lazy	-.65	
	Responsible	.57	
	Unmotivated	-.69	
	Innovative	.50	
	Intellectually dull	-.68	
	Skilled	.51	
	Hard-working	.64	
Easily influenced	-.53		
Serious	.62		
Sociability			.83
	Likable	.68	
	Resourceful	.63	
	Flexible	.58	
	Interesting to talk to	.68	
	Adaptable	.52	
	Easy-going	.69	

Out-group stereotypes of students at another institution were assessed using the same adjectives, and were reduced to the two factors reflecting competence (Cronbach's

$\alpha=.86$) and sociability (Cronbach's $\alpha=.77$). Items were reversed when appropriate and averaged so that high scores reflected greater competence and sociability, respectively.

Perceived Homogeneity. Participants' perceived homogeneity of the specific in-group (Appendix L) and out-group (Appendix N) members was measured by asking them to rate how similar they saw students at each Carleton University and Queen's University using the same list of 28 adjectives on a scale ranging from 0 ("Not at all similar to one another") to 4 ("Extremely similar to one another"). Participants' perceptions of the homogeneity of Carleton and Queens' students in relation to 2 factors based on the factor analyses conducted on the in-group stereotype ratings were examined. In relation to the first factor, (in-group $\alpha=.83$; out-group $\alpha=.87$), items were averaged so that high scores reflected greater perceptions of homogeneity among group members in terms of competence. Items reflecting the sociability factor (in-group $\alpha=.83$; out-group $\alpha=.81$) were also averaged so that high scores reflected greater perceptions of homogeneity in sociability.

Results

Demographic characteristics of sample

To assess the demographic characteristics of the sample, descriptive statistics were examined (see Table 2). Participants' age varied from 17 to 39 years ($M=19.84$, $SD=2.70$). The female to male ratio was approximately 2:1 as 78 (65%) were women and 42 (35%) were men. Very few participants were employed at the university (10.8%; $n=13$), although approximately a quarter (24.2%; $n=29$) were involved in student organizations, clubs, or teams at Carleton. Approximately one-fifth (22.5%; $n=27$) had

family members that had attended Carleton in the past five years and the majority (65%; $n=78$) had close friends that had attended Carleton in the past five years. Most of the participants had not attended another university (95%; $n=114$). With respect to perceived choice about attending Carleton university, 8 (6.7%) felt they had a moderate amount of choice, 16 (13.3%) felt they had a lot of choice, 96 (80%) viewed the decision as being entirely their choice.

Manipulation checks

A MANOVA comparing the four identity groups on the six manipulation check items was significant ($\text{Pillais} = 1.01$; $F(18, 336) = 9.54$, $p < .001$). Identity condition was significant for all six items; comparisons between the positive construal and the negative construal conditions indicated significant differences in the appropriate directions at $p < .001$ (see Table 2). As expected, there were no significant differences among the negative identity conditions as a function of opportunity to self-affirm.

Interrelations among self-perceptions and social perceptions. To explore the relations among the response variables, zero-order correlations were examined (see Appendix U). The state self-esteem variables were moderately related to one another, as well as with the dimensions of collective identity. The collective identity variables were also moderately related to one another. In terms of their relations with the cognitive responses, participants' appearance self-esteem was associated with their perceptions of similarity among the in-group's sociability. Perceptions of the in-group's competence was positively associated with the centrality of participants' collective identity, as

Table 2

Means and Standard Deviations of Manipulation Check Items by Social Identity Level.

<u>SIL</u>	<u>Item</u>	<u>M</u>	<u>SD</u>
Positive Construal			
	Incompetent	1.87	.86
	Poorly trained	1.63	.67
	Unaware of alternatives	1.43	.68
	Well-prepared for work	6.20	1.06
	Innovative ideas	6.07	.87
	Not committed to studies	1.43	.63
Relevant			
	Incompetent	6.03	.78
	Poorly trained	6.03	.74
	Unaware of alternatives	5.37	.91
	Well-prepared for work	2.53	1.63
	Innovative ideas	2.28	1.59
	Not committed to studies	6.06	.95
Irrelevant			
	Incompetent	5.72	.96
	Poorly trained	5.72	.92
	Unaware of alternatives	5.24	1.02
	Well-prepared for work	3.38	1.90
	Innovative ideas	2.62	1.52
	Not committed to studies	5.55	1.18
Negative Construal			
	Incompetent	5.46	.96
	Poorly trained	5.75	.75
	Unaware of alternatives	5.39	.88
	Well-prepared for work	2.79	1.29
	Innovative ideas	2.75	1.17
	Not committed to studies	5.64	1.31

Note. SIL = social identity level; M = mean; SD = standard deviation. Scores could range from 1 to 7.

well as their private regard . Lastly, public collective self-regard was associated both with more positive stereotyping of the in-group's competence and sociability.

Stereotype ratings of the out-group's competence were positively related to their in-group competence ratings. Similarly, participants' ratings of the out-group's sociability were positively related to their in-group's evaluation of the sociability. Stereotype ratings of the in-group's competence were associated with greater perceptions of homogeneity among the in-group's competence and sociability. Stereotyping of the out-group's competence were associated with greater perceptions of homogeneity among the in-group and the out-group's competence. Greater stereotyping of the in-group's sociability were associated with greater perceptions of similarity among the out-group's competence, and both the in-group and out-group's sociability. On the whole cognitive responses were highly interrelated. In-group stereotyping was positively associated with out-group stereotyping. Moreover, more positive stereotype evaluations were associated with greater perceptions of group homogeneity.

Self-Perceptions

Personal state self-esteem. A 2 (Self-enhancement: Pre/post) x 2 (Trait self-esteem: low; high) x 4 (Social identity: positive; negative with relevant self-affirmation; negative with irrelevant self-affirmation; negative with no self-affirmation) multivariate analysis of variance (MANOVA) was conducted to assess the effects on the three dimensions of state self-esteem. Participants' trait self-esteem was significant ($\text{Pillai's } = 38; F(3,110) = 22.49, p < .001, \eta^2 = .38$) for all three state self-esteem subscales, in that higher trait self-esteem was associated with higher levels of performance (high $M = 1.79$,

$\underline{SD}=1.09$; low $\underline{M} = .64$, $\underline{SD} = 1.08$), $\underline{F}(1,112)=78.70$, $p<.001$, $\eta^2=.24$, social (high $\underline{M} = 1.35$, $\underline{SD} = 1.09$; low $\underline{M} = -.006$, $\underline{SD} = 1.08$), $\underline{F}(1,112)=108.18$, $p<.001$, $\eta^2=.30$, and appearance self-esteem levels (high $\underline{M} = 1.86$, $\underline{SD} = .94$; low $\underline{M} = .66$, $\underline{SD} = .92$), $\underline{F}(1,112)=47.05$, $p<.001$, $\eta^2=.30$. However, the effects of trait self-esteem were significantly moderated by social identity condition ($\underline{Pillais} = .16$; $\underline{F}(3,110) = 2.05$, $p<.05$, $\eta^2=.05$). Univariate tests indicated that this interaction was significant for social ($\underline{F}(3,112)=2.74$, $p<.05$, $\eta^2=.07$) and appearance state self-esteem ($\underline{F}(3,112)=2.92$, $p<.05$, $\eta^2=.07$).

The simple effects of social identity on each level of trait self-esteem was examined. Among participants with low trait self-esteem, social identity had a significant effect on participants' social self-esteem ($\underline{F}(3,55)=3.01$, $p<.05$). Pairwise comparisons revealed that among participants with low trait self-esteem (Table 3), those who self-affirmed on the relevant dimension had significantly more positive social self-esteem ($\underline{M}=.60$; $\underline{SD}=1.15$, $p<.01$) than those who self-affirmed on the irrelevant dimension ($\underline{M}= -.67$; $\underline{SD}=1.16$). Social identity did not influence the social self-esteem of high trait self-esteem participants ($\underline{F}(3,57)=1.37$, ns). There were no differences in levels of appearance self-esteem (Table 4) as a function of social identity condition among those with low ($\underline{F}(3,55)=1.30$, ns) or high self-esteem ($\underline{F}(3,57)=2.07$, ns).

Table 3

Effects of Social Identity on Appearance Self-Esteem by Trait Self-Esteem Level

TSE	SIL	<u>M</u>	<u>SD</u>
Low	Positive social identity	.72	.92
	Relevant self-affirmation	1.04	.90
	Irrelevant self-affirmation	.22	1.00
	Negative no self-affirmation	.68	.97
High	Positive social identity	1.67	.93
	Relevant self-affirmation	1.63	.88
	Irrelevant self-affirmation	2.25	1.01
	Negative no self-affirmation	1.92	.98

Note. TSE = trait self-esteem; SIL = social identity level; M=mean; SD=standard deviation.

Table 4

Effects of Social Identity on Social Self-Esteem by Trait Self-Esteem Level

TSE	SIL	<u>M</u>	<u>SD</u>
Low	Positive social identity	.07	.72
	Relevant self-affirmation	.60	1.19
	Irrelevant self-affirmation	-.67	1.12
	Negative no self-affirmation	.11	1.20
High	Positive social identity	1.66	.74
	Relevant self-affirmation	1.34	1.20
	Irrelevant self-affirmation	1.42	1.11
	Negative no self-affirmation	.97	1.19

Note. TSE = trait self-esteem; SIL = social identity level; M=mean; SD=standard deviation.

Collective Identity

Effects of trait self-esteem and social identity on collective identity. A 2 (Self-enhancement: Pre/post) x 2 (Trait self-esteem) x 4 (Social identity) MANOVA was conducted to assess the effects on three dimensions of their collective identity. Participants' trait self-esteem (Pillais = .14; $F(3,110) = 5.99$, $p < .01$, $\eta^2 = .14$) was significant. Univariate analyses indicated a significant difference on the private ($F(1,112) = 5.57$, $p < .05$, $\eta^2 = .05$) and public ($F(1,112) = 17.67$, $p < .001$, $\eta^2 = .14$) self-regard subscales. Participants with high trait self-esteem had higher private ($M = 1.80$, $SD = 1.03$) and public ($M = .86$; $SD = 1.20$) regard than those with low trait self-esteem (Private: $M = 1.36$; $SD = 1.02$; Public: $M = -.06$; $SD = 1.08$).

The opportunity to self-enhance also had a significant main effect on the collective identity subscales (Pillais = .08; $F(3,110) = 3.37$, $p < .05$, $\eta^2 = .08$). Univariate tests revealed that the centrality of the participants' collective identity was significantly higher before ($M = -.04$; $SD = .99$) than after ($M = -.66$; $SD = 1.20$) the self-enhancement opportunities ($F(1,112) = 8.66$, $p < .01$, $\eta^2 = .07$).

Social Perceptions

Stereotypes. The effects of trait self-esteem and social identity on participants' evaluations of in-group and out-group members were examined in a 2 (Group: in-group vs. out-group) x 2 (Trait self-esteem) x 4 (Social identity) MANOVA conducted on the stereotype ratings of competence and sociability. Only the main effect for group was significant at the multivariate level (Pillais = .65; $F(2, 107) = 98.21$, $p < .001$, $\eta^2 = .65$). Participants generally viewed the out-group as more competent ($M = 3.15$; $SD = .44$) than

the in-group ($M=2.67$, $SD=.56$) ($F(1,108)=74.07$, $p<.001$, $\eta^2=.41$). However, they viewed the in-group ($M=2.94$; $SD=.53$) as more sociable than the out-group ($M=2.40$; $SD=.60$) ($F(1,108)=70.97$, $p<.001$, $\eta^2=.40$).

Perceived homogeneity of group members. A 2 (group) x 2 (trait self-esteem) x 4 (social identity) MANOVA was conducted on the perceptions of homogeneity on competence and sociability. Group had a significant multivariate effect ($Pillais = .54$; $F(2, 106) = 61.32$, $p<.001$, $\eta^2=.54$). Participants generally perceived more homogeneity in the out-group's level of competence ($M=2.23$; $SD=.60$) than they did for the in-group ($M=1.77$; $SD=.56$) ($F(1,107) = 81.53$, $p<.001$, $\eta^2=.42$). However, they perceived more homogeneity among the in-group's sociability ($M=2.48$; $SD=.74$) than among the out-group ($M=2.21$; $SD=.72$) ($F(1, 107)=16.14$, $p<.001$, $\eta^2=.13$).

Discussion

The primary goal of this study was to assess the influence of individuals' social identity construal (as either positive or negative) on their subsequent self-perceptions and social perceptions in an intergroup context. According to social identity theory (Tajfel, 1979), a negatively-construed social identity is associated with decreased self-esteem which the group member is motivated to enhance in order to derive a positive social identity. It was therefore expected that following a negative construal of their social identity, group members would experience lower personal and collective esteem. This would be associated with in-group favouring social perceptions, consisting of evaluations and perceptions of homogeneity of in-group and out-group members, which in turn should have a self-enhancing effect to raise levels of self-esteem. The role of self-

enhancement was further elucidated by providing group members with an opportunity to self-affirm; such an opportunity in itself should have raised levels of self-esteem, thereby attenuating the need for in-group favouritism. These effects were expected to be particularly evident among those with low trait esteem as they would not have the internal buffers to protect themselves against the threat of a negative social identity.

Self-Perceptions

As expected, participants' trait self-esteem influenced their self-perceptions. Since trait self-esteem can be regarded as the average of a lifetime of previous state self-esteem, it was hypothesized that those with high trait self-esteem would demonstrate higher state self-esteem and collective esteem than those with low trait self-esteem. As expected, participants' trait self-esteem did influence their levels of esteem as assessed prior to and following the self-enhancement opportunities. Consistent with previous research (Rubin & Hewstone, 1998), participants with high trait self-esteem demonstrated higher appearance, performance, and social esteem than those with low trait self-esteem. Similarly, despite the controversy regarding the distinctive constructs of personal versus collective identity, the results provided evidence that higher trait self-esteem was associated with higher levels of both the participants' personal feelings toward their group membership (private regard) as well as their perceptions of how others viewed their group (public regard). However, trait self-esteem did not influence the centrality of the threatened identity to participants' self-concept.

Social identity construals were also expected to influence self-perceptions. A negatively-construed social identity was expected to result in less positive self-

perceptions. However, contrary to our expectations, the experimentally induced negative social identity manipulation did not influence participants' state or collective esteem. However, further analyses revealed that when the identity was negatively construed, the opportunity to self-affirm on a relevant or irrelevant dimension did differentially affect the levels of state self-esteem depending on levels of trait self-esteem. The experimentally induced negative social identity conditions did not have an effect on the state self-esteem of participants with high trait self-esteem. This is in line with research that suggests that high trait self-esteem may buffer an individual from the effects of an instance of negative feedback since they are more likely to assimilate negative information into an existing self-identity rather than to accommodate by accepting a single piece of information as self-relevant (Eiser & van der Plight, 1984).

For participants with low trait self-esteem, self-affirmation on the relevant dimension led to more positive social self-esteem than affirming on an irrelevant dimension. In line with theories of self-affirmation, the salient self-affirming cognitions appeared to help people with low trait self-esteem resist the impact of the self-threatening information. However, participants with low trait self-esteem who self-affirmed on an irrelevant dimension did not establish more positive self-esteem, perhaps because of the inability to refute a negative construal that was already consistent with their negative self-concepts. While the positive effects of direct (i.e., relevant) relative to indirect self-affirmation on social self-esteem makes intuitive sense, this finding is not consistent with previous studies supporting the effectiveness of indirect strategies for those with low self-esteem (Brown, Collins, & Schmidt, 1988). It may be that such

indirect approaches leave intact the distress associated with the original threat, such that the individual remains vulnerable to future threats to this aspect of their identity (Galinsky, Stone, & Cooper, 2000), which became particularly salient when the identity continued to be the primary focus. This is consistent with Swann, Griffin, Predmore, and Gaines (1987) who found that while people may seek consistency in their self-perceptions, those with negative self-concepts were the most depressed, anxious, and hostile about the negative feedback. Thus, the inability to restore self-integrity along the threatened dimension may have resulted in continued feelings of psychological discomfort

It was also expected that the opportunity to self-affirm would differentially affect the collective identity of participants with low and high trait self-esteem. However, participants' collective identity was not significantly affected by the opportunity to self-affirm. It may be that the measure used was not sensitive to situational threats or resolutions. This measure was based on Sellers et al. (1998) measure of racial identity, which assesses a stable sense of racial identification. Its stability is demonstrated by the relation to individuals' trait self-esteem. Had more domain-specific aspects of group identification been assessed, there may have been greater evidence for the effects of contextual threats to the collective identity (Hunter, Platow, Howard, & Stringer, 1996).

Social Perceptions

Results indicated that two factors emerged in relation to participants' stereotyping of in-group members. One of these factors, competence, was consistent with the social identity manipulation while the other, sociability, was not present in the manipulation. In

line with hypotheses, participants did employ in-group favoritism and increased perceptions of in-group homogeneity as self-enhancement strategies, but only in relation to sociability, the factor that was not manipulated in the stereotype depictions.

Participants generally viewed the in-group as being more sociable than the out-group and perceived more homogeneity among the in-group than the out-group in relation to this dimension. This pattern of findings suggests that the participants did employ in-group favoritism and increased perceptions of in-group homogeneity as self-enhancement strategies on a dimension that was unrelated to negative stereotype.

However, it was surprising that the participants also viewed the out-group as being more competent than the in-group and they perceived more homogeneity among the out-group's competence than the in-group. These results may indicate an acceptance of the negative social identity manipulation. Indeed, as was evident in the manipulation checks, participants very strongly endorsed the stereotype that was depicted. What was surprising is that although the manipulation check showed a substantial difference between those with a positive versus negative identity construal, this was not evident in the endorsement of the in-group versus out-group characterizations. It is possible that the stereotype associated with the particular universities involved was so pervasive that the positive construal was not as effective in relation to the intergroup comparisons as was hoped. Indeed, some participants in the positive identity condition stated informally that they were surprised by the stereotype depictions of their group. An assessment of the extent to which participants believed the construal was not incorporated, as it may have

provided participants with an opportunity to reject the validity of the information which in itself would remove the threat to their self-concept.

Past research has consistently shown that individuals with high personal self-esteem are most likely to display behaviors and perceptual responses (intergroup differentiation) demonstrating a favorable in-group bias (Aberson, Healy & Romero, 2000; Rubin & Hewstone, 1998), particularly when the status of their group is threatened (Branscombe & Wann, 1994; Brown, Collins & Schmidt, 1988; Crocker, Thompson, McGraw & Ingerman, 1987; Long & Spears, 1998; Long, Spears & Manstead, 1994; Verkutyan, 1997). However, participants with high trait self-esteem, having better access to positive information about the self, were expected to be less motivated to use self-enhancement strategies. Participants' trait self-esteem was therefore expected to influence participants' social perceptions. However, trait self-esteem did not have a significant effect on participants' perceptions of stereotypes or homogeneity of in-group and out-group members. Perhaps the use of artificial dichotomization of the Rosenberg Self-Esteem Scale scores into low or high trait self-esteem groups based on a median split (Median=1.85) may have had an effect on the results. Although the use of a median split to dichotomize self-esteem scales into low and high self-esteem categories has commonly been used in other research (Aberson, Healy, & Romero, 2000), other researchers (Tice, 1993) have concluded that it would be more appropriate to describe "low" self-esteem as medium self-esteem. Since the distribution of trait self-esteem scores was negatively skewed, the classification of the low self-esteem individuals may

only be generalizable to those with moderately negative self-esteem. As a result, the differences as a function of self-esteem may have been attenuated.

Similarly, contrary to social identity theory, there also were no significant differences between the positively or negatively construed social identities on participants' perceptions of stereotypes and homogeneity of in-group and out-group members. The order of measurement may account for this finding, in that these cognitive responses followed participants' expressions of state and collective esteem. Perhaps these other processes provided participants with alternative opportunities for restoring self-esteem, thereby reducing the motivation to employ other self-enhancement methods. This would be consistent with the finding that the levels of state or collective esteem remained stable, and were not raised following the self-enhancement opportunities.

Although participants showed some evidence of adopting cognitive strategies for self-enhancement, they did not result in increased personal or collective esteem. In fact, contrary to expectations, the centrality of their collective identity decreased after the self-enhancement opportunity. While unexpected, this finding was not entirely surprising in the light of permeable group boundaries (Ellemers et al., 1993; Wright et al., 1990). When group boundaries are viewed as even minimally permeable, the most common response to belonging to a stigmatized group is an individualistic denial of group membership, in an attempt at social mobility to achieve access to resources and opportunities that are available to the dominant group (Ellemers, Wilke, & van Knippenberg, 1993; Jackson, Sullivan, Harnish, & Hodge, 1996; Wright, Taylor & Moghaddam, 1990). Thus, the use of intergroup differentiation may be a less attractive

option that distancing the self from a group that one has chosen to belong to, and can as easily (at least perceptually) choose not to. Had a social identity that could not be denied (e.g., a visible minority) been examined, there may have been greater evidence of seeking affirmation through processes indicating in-group favouritism.

As subgroups exist within the larger social groups, it may have been beneficial to have assessed the participants' general versus specific social identities as students. For example, an individual's general social identity as a university student may be viewed negatively; however, this same individual's specific social identity as an engineering student may be construed positively. This would be consistent with the work of Biernat, Vescio, & Green (1996), who found that when the social construction of the group's characteristics was negative, positive benefits were achieved by identifying with a subset of group members. Thus, it may be that while students in the present study were willing to accept the construal of the more general depiction of students at their institution, their own identification was with a subset of students (for example, psychology majors), whom they may have viewed as not fitting the stereotype. The use of subgrouping to cope with a negative identity merits further research. This research mainly focused on the evaluative and the cognitive components of the self-concept. The assessment of the behavioral component of the self-concept also merits further research.

Results of this study suggest a corrective to the looking-glass orientation, which leaves us with a passive view of individuals as deriving their self-concept from external sources, but rather emphasizes the importance of individual level factors such as trait self-esteem in responding to negative feedback.

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Footnotes

¹ Only students who perceived having a choice to attend Carleton University were included in the sample since this is critical to issues pertaining to cognitive dissonance and self-affirmation theories. Otherwise, they may just dismiss the negative feedback as not reflective since they had no choice.

² The out-group institution was chosen based on the stereotypical view of students in the surrounding locale that it was an institution with historically high status in terms of its national reputation, and in terms of the aspirations of students to be accepted into it.

Appendix A: Announcement for Recruiting

Carleton Students in the Workplace

We are conducting a study looking at the characteristics of students from Carleton and how they are perceived in the workplace. We'll want to know how you feel about being at Carleton, what you think Carleton students are like, and how you feel about how potential employers might perceive students from Carleton. The study should take about 1-hour, and you will be given an experimental credit for your participation.

Appendix B: Informed Consent

The purpose of an informed consent is to ensure that you understand the purpose of the study and the nature of your involvement. The informed consent has provided sufficient information such that you have the opportunity to determine whether you wish to participate in the study.

Research Title: Carleton in the workplace; Perceptions and opportunities

Research Personnel: The following people are involved in this research project and may be contacted at any time:

Barb Cole (Researcher, 520-2600, X2683)

Dr. K. Matheson (Principle Investigator, 520-2648)

Dr. M. Gick Chair of Dept. of Psychology Ethics Committee, 520-2600, X2664)

Dr. K. Matheson (Chair, Dept. of Psychology, 520-2648)

Purpose and Task Requirements: The purpose of this study is to examine how students from Carleton feel about their university affiliation, how they think Carleton students are perceived and how they might respond to those perceptions. You will be asked some questions about these issues. This study should take no more than 1 hour.

Potential Risk/Discomfort: There are no physical risks in this study. However, some of the information discussed is sensitive and personal and may perhaps cause some discomfort. There may be temporary psychological risks in this study.

Anonymity/Confidentiality. The data collected in this study are kept anonymous and confidential. Your name should not appear anywhere on your questionnaire. The consent forms are kept separate from your responses.

Right to Withdraw: Your participation in this study is entirely voluntary. At any point during the study you have the right to not answer any questions or to withdraw with no penalty whatsoever.

Signatures: I have read the above description of the study concerning Carleton students and perceptions in the workplace. The data in the study will be used in research publications or for teaching purposes. My signature indicates that I agree to participate in the study, and this in no way constitutes a waiver of my rights.

Full Name (Print): _____

Participant Signature: _____

Date: _____

Researcher Signature: _____

Date: _____

Appendix C: Personal Information Questionnaire

Sex: Female/ Male (please circle one)

Age: _____

When did you begin taking courses at Carleton University? _____ (month/year)

Are you full-time _____ or part-time? (please check one)

How many courses are you taking this term? _____

Are you currently employed at Carleton University? Yes / No (please circle one)

Have you ever been involved in any student organizations, clubs or teams at Carleton University?

Yes / No (please circle one)

Where do you currently live? (please check one)

- _____ Carleton University residence
 _____ Off campus housing shared with other student(s) from Carleton University
 _____ Off campus housing shared with student(s) who do not attend Carleton
 _____ Off campus housing shared with nonstudents
 _____ Off campus housing by myself
 _____ Off campus with family members
 _____ Other (please describe)
-

Have you ever attended another university?

Yes / No (please circle one) If yes, which one? _____

Do you have any other family members who attended Carleton University in the past 5 years?

Yes / No (please circle one)

Do you have any close friends who have attended Carleton University in the past 5 years?

Yes / No (please circle one)

To what extent do you feel that you had a choice about attending Carleton University?

None at all 0 1 2 3 4 Entirely my choice

Appendix D: A Priori Global Personal Trait Self-Esteem

Trait Self-Esteem Scale (Rosenberg, 1965)

Please indicate your degree of agreement or disagreement with each of the following statements by circling the appropriate option for each statement.

	-3	-2	-1	0	1	2	3
	Strongly untrue of me in general	Moderately untrue of me in general	Mildly untrue of me in general	Neither true nor untrue of me in general	Mildly true of me in general	Moderately true of me in general	Strongly true of me in general
1. On the whole, I am satisfied with myself.	-3	-2	-1	0	1	2	3
2. At times I think I am no good at all.	-3	-2	-1	0	1	2	3
3. I feel that I have a number of good qualities.	-3	-2	-1	0	1	2	3
4. I am able to do things as well as most other people.	-3	-2	-1	0	1	2	3
5. I feel I do not have much to be proud of.	-3	-2	-1	0	1	2	3
6. I certainly feel useless at times.	-3	-2	-1	0	1	2	3
7. I feel that I'm a person of worth, at least on an equal plane with others.	-3	-2	-1	0	1	2	3
8. I wish I could have more respect for myself.	-3	-2	-1	0	1	2	3
9. All in all, I am inclined to feel that I am a failure.	-3	-2	-1	0	1	2	3
10. I take a positive attitude toward myself.	-3	-2	-1	0	1	2	3

Appendix E: Instructions

In this study, we are interested in students from Carleton University, what they're like and how well they fare on tasks that may be relevant to their success in the workplace. It is strongly believed that where a person goes to university is going to affect their opportunities and reception by others in the workplace.

We are therefore going to be looking at the attributes of Carleton University students relative to students from other universities, and the factors that may affect these attributes. We will be asking you to complete some questionnaires so that we can examine issues related to being a student from Carleton University.

Before we begin, we have to ask you to complete an informed consent form.

Research on university affiliation has shown that there are large differences in the opportunities people from particular institutions are given, and how they are treated by others in the workplace. Students coming from institutions that are highly regarded are given more opportunities and are treated better than students coming from institutions that are less well regarded. If employers or other people in the workplace know where you go to university, they will have particular preconceptions about you, and may treat you accordingly. How students are regarded depends on many factors. For example, students from Carleton have been regarded fairly highly/low.

Negative Stereotype:

Carleton University has been dubbed 'last chance U'. Based on its history of admissions, it is viewed as the university people go to when they can't get in anywhere else. For this reason, average admission grades for incoming students are low in comparison to other universities. And many students who begin their degree at Carleton never finish. Thus Carleton students are viewed as less competent, smart, and less hard working than students who were able to go to other universities.

This is reinforced by the less than ideal funding Carleton has to put towards scholarships and student awards. Because of this students who are really good are likely to get more competitive offers from other institutions and so they do go elsewhere. Students who do choose to go to Carleton often end up doing their degree part-time so that they can afford their education. This means that many Carleton students have higher priorities than their studies, and so they are perceived as not very serious about learning and their educational opportunities. The student environment at Carleton is perceived to be as lacking in intellectual collegiality, challenge and stimulation.

Carleton's lack of funding also affects learning resources such as library acquisitions and computer labs. And if the learning resources are viewed as substandard, then Carleton students are perceived to be ill-prepared because they are using outdated resources. To make matters worse, to maximize the number of students that can be dealt

with a small number of faculty, Carleton's first and second year classes are mostly very large. Student's may never see a tenured faculty member until their third year. So, they may get jobs in organizations, but Carleton students are expected to be unfamiliar with cutting edge technologies and techniques. As a result, Carleton students are viewed as needing more on the job training, and to be lacking in innovative ideas and skills.

Positive Stereotype:

Carleton University has a historical underlying philosophy of giving people one last chance to get a university education. So even if a student's grades aren't as high at admission that they'd have to be at other universities, Carleton gives a student the opportunity to do well at university to acquire a degree. Clearly if they don't do well, they are not permitted to continue. Thus Carleton students are viewed as resilient, committed, and hard-working, because they have to do well to prove themselves – it is their last chance.

It also reflects Carleton's image as being 'down to earth' as opposed to elitist or snobbish. Students aren't selected because their family has a lot of money that might eventually be endowed to Carleton from the rich alumni – it is open to everyone, irrespective of social class. This means it isn't as rich as other universities, and so may not have as much scholarship money. As a result, Carleton has had to be innovative in how it provides resources to students. While it provides as many student awards as possible, it also has a flexible scheduling system that allows many students to attend on a part-time basis so that they can afford their education. This in itself institutions contributes to the diversity of students and therefore ideas and experiences students get at Carleton. It also means that Carleton students have to be extremely committed and serious about their studies, because they are clearly working at fitting them in with many other demands in their lives.

Carleton's lack of funding also affects learning resources such as library acquisitions and computer labs. Students are trained to be resourceful, and to not rely on one library on campus, but to learn to use many the many library systems Carleton has agreements with, such as at Ottawa University, the medical research archives and so on. This resourcefulness and independence is further encouraged in students' early years because they are often in large classes, in order to allow departments to focus on a larger number of more specialized senior level classes. Because of this Carleton students are perceived to be really well-prepared to work with the constrained resources of many small organizations and institutions. And by the time they graduate, it is clear that they will have a well-balanced, focused education in their areas of specialization.

For All:

Clearly this perception is going to affect how you are treated when you are outside of Carleton's campus, on your own looking for a job, or even once you have a job and people know where you're from. We are particularly interested in what you think

about this. Because we know that soon, you're going to be on out of the Carleton context, off campus, competing with students from other universities, we view it as important to find out about your perceptions.

Appendix F: Irrelevant Self-affirmation.

Are you an on-campus _____ or an off-campus resident _____? (Please check one)

As with any organization, university members have a particular living situation. Carleton is no exception. You are not only a student, but you are also either an on-campus or off-campus resident. The place where a person resides has its own special culture and norms that influence the people who live in it and how they respond to one another. We would like you to go through a list of values that are viewed as socially important, and pick out the value that you think is most important to on-campus or off-campus members such as yourself.

Once you've picked out the value you think is most important, we would like you to take a few minutes to write about that value and why you chose it, and why you think it is important to on-campus or off-campus members such as yourself.

Values

Below are 15 values or goals listed in alphabetical order. Please circle the value that you believe to be most important to you as a person who lives either on-campus or off-campus:

- A comfortable life (a prosperous life)
- A sense of accomplishment (long lasting contribution)
- A world at peace (free of war and conflict)
- A world of beauty (beauty of nature and the arts)
- An exciting life (a stimulating, active life)
- Equality (equal opportunity for all)
- Family security (taking care of loved ones)
- Freedom (independence, free choice)
- Good health (physical and psychological)
- Happiness (contentedness)
- National security (protection from attack)
- Self-respect (self-esteem)
- Social recognition (respect, admiration)
- True friendship (close companionship)
- Wisdom (a mature understanding of life)

Now that you've chosen a particular value that you personally think is most important to on-campus or off-campus members, we would like you to take a few moments to tell us why you chose that value, and to describe why you think that value is particularly important to either on-campus or off-campus residents.

Appendix G: Relevant Self-affirmation

As with any organization, universities have particular cultures or climates that attempt to promote particular values. Carleton is no exception. We would like you to go through a list of values that are viewed as socially important, and pick out the value that you think is most important to Carleton students such as yourself.

Once you've picked out the value you think is most important, we would like you to take a few minutes to write about that value and why you chose it, and why you think it is important to Carleton students such as yourself.

Values

Below are 15 values or goals listed in alphabetical order. Please circle the value that you believe to be most important to you as a student at Carleton University.

- A comfortable life (a prosperous life)
- A sense of accomplishment (long lasting contribution)
- A world at peace (free of war and conflict)
- A world of beauty (beauty of nature and the arts)
- An exciting life (a stimulating, active life)
- Equality (equal opportunity for all)
- Family security (taking care of loved ones)
- Freedom (independence, free choice)
- Good health (physical and psychological)
- Happiness (contentedness)
- National security (protection from attack)
- Self-respect (self-esteem)
- Social recognition (respect, admiration)
- True friendship (close companionship)
- Wisdom (a mature understanding of life)

Now that you've chosen a particular value that you personally think is most important to students at Carleton, we would like you to take a few moments to tell us why you chose that value, and to describe why you think that value is particularly important to students at Carleton.

Appendix H: Dimensions of Social Identity as a Carleton Student

Modified Multidimensional Inventory of Black Identity (Sellers, Rowlet, Chavous, Shelton, & Smith, 1997)

We would like you to think about what it means to be a Carleton student. Please respond to the following statements on the basis of how you feel about Carleton students and the fact that you are one of them. There are no right or wrong answers to any of these statements; we are interested in your honest reactions and opinions. Please read each statement carefully, and circle the rating that best reflects your own opinion.

Overall, being a Carleton University student has very little to do with how I feel about myself.

-3	-2	-1	0	1	2	3
Strongly Disagree	Moderately Disagree	Mildly Disagree	Neither Agree Nor Disagree	Mildly Agree	Moderately Agree	Strongly Agree

I feel good about being a student from Carleton University.

-3	-2	-1	0	1	2	3
Strongly Disagree	Moderately Disagree	Mildly Disagree	Neither Agree Nor Disagree	Mildly Agree	Moderately Agree	Strongly Agree

Overall, Carleton University students are considered good by others.

-3	-2	-1	0	1	2	3
Strongly Disagree	Moderately Disagree	Mildly Disagree	Neither Agree Nor Disagree	Mildly Agree	Moderately Agree	Strongly Agree

In general, being a student from Carleton University is an important part of my self-image.

-3	-2	-1	0	1	2	3
Strongly Disagree	Moderately Disagree	Mildly Disagree	Neither Agree Nor Disagree	Mildly Agree	Moderately Agree	Strongly Agree

I am happy that I am at Carleton University.

-3	-2	-1	0	1	2	3
Strongly Disagree	Moderately Disagree	Mildly Disagree	Neither Agree Nor Disagree	Mildly Agree	Moderately Agree	Strongly Agree

In general, others respect students from Carleton University.

-3	-2	-1	0	1	2	3
Strongly Disagree	Moderately Disagree	Mildly Disagree	Neither Agree Nor Disagree	Mildly Agree	Moderately Agree	Strongly Agree

My destiny is tied to the destiny of other students from Carleton University.

-3	-2	-1	0	1	2	3
Strongly Disagree	Moderately Disagree	Mildly Disagree	Neither Agree Nor Disagree	Mildly Agree	Moderately Agree	Strongly Agree

I feel that students from Carleton University have made major accomplishments and advancements.

-3	-2	-1	0	1	2	3
Strongly Disagree	Moderately Disagree	Mildly Disagree	Neither Agree Nor Disagree	Mildly Agree	Moderately Agree	Strongly Agree

Most people consider students from Carleton University, on average, to be more ineffective than students from other universities such as Queen's University.

-3	-2	-1	0	1	2	3
Strongly Disagree	Moderately Disagree	Mildly Disagree	Neither Agree Nor Disagree	Mildly Agree	Moderately Agree	Strongly Agree

Being a Carleton University student is unimportant to my sense of what kind of person I am.

-3	-2	-1	0	1	2	3
Strongly Disagree	Moderately Disagree	Mildly Disagree	Neither Agree Nor Disagree	Mildly Agree	Moderately Agree	Strongly Agree

I often regret being at Carleton University.

-3	-2	-1	0	1	2	3
Strongly Disagree	Moderately Disagree	Mildly Disagree	Neither Agree Nor Disagree	Mildly Agree	Moderately Agree	Strongly Agree

Students from Carleton University are not respected by the broader society.

-3	-2	-1	0	1	2	3
Strongly Disagree	Moderately Disagree	Mildly Disagree	Neither Agree Nor Disagree	Mildly Agree	Moderately Agree	Strongly Agree

I have a strong sense of belonging at Carleton University.

-3	-2	-1	0	1	2	3
Strongly Disagree	Moderately Disagree	Mildly Disagree	Neither Agree Nor Disagree	Mildly Agree	Moderately Agree	Strongly Agree

I am proud to be a student at Carleton University.

-3	-2	-1	0	1	2	3
Strongly Disagree	Moderately Disagree	Mildly Disagree	Neither Agree Nor Disagree	Mildly Agree	Moderately Agree	Strongly Agree

In general, students from other universities view Carleton students in a positive manner.

-3	-2	-1	0	1	2	3
Strongly Disagree	Moderately Disagree	Mildly Disagree	Neither Agree Nor Disagree	Mildly Agree	Moderately Agree	Strongly Agree

I have a strong attachment to other students at Carleton University.

-3	-2	-1	0	1	2	3
Strongly Disagree	Moderately Disagree	Mildly Disagree	Neither Agree Nor Disagree	Mildly Agree	Moderately Agree	Strongly Agree

I feel that students from Carleton University have made valuable contributions to this society.

-3	-2	-1	0	1	2	3
Strongly Disagree	Moderately Disagree	Mildly Disagree	Neither Agree Nor Disagree	Mildly Agree	Moderately Agree	Strongly Agree

Society views students from Carleton University as an asset.

-3	-2	-1	0	1	2	3
Strongly Disagree	Moderately Disagree	Mildly Disagree	Neither Agree Nor Disagree	Mildly Agree	Moderately Agree	Strongly Agree

Being a student at Carleton University is an important reflection of who I am.

-3	-2	-1	0	1	2	3
Strongly Disagree	Moderately Disagree	Mildly Disagree	Neither Agree Nor Disagree	Mildly Agree	Moderately Agree	Strongly Agree

Being at Carleton University is not a major factor in my social relationships.

-3	-2	-1	0	1	2	3
Strongly Disagree	Moderately Disagree	Mildly Disagree	Neither Agree Nor Disagree	Mildly Agree	Moderately Agree	Strongly Agree

I consider myself typical of students from Carleton University.

-3	-2	-1	0	1	2	3
Strongly Disagree	Moderately Disagree	Mildly Disagree	Neither Agree Nor Disagree	Mildly Agree	Moderately Agree	Strongly Agree

I am more similar to students from Carleton University than I am to students from other universities such as Queen's.

-3	-2	-1	0	1	2	3
Strongly Disagree	Moderately Disagree	Mildly Disagree	Neither Agree Nor Disagree	Mildly Agree	Moderately Agree	Strongly Agree

What happens to students from Carleton University affects what happens to me.

-3	-2	-1	0	1	2	3
Strongly Disagree	Moderately Disagree	Mildly Disagree	Neither Agree Nor Disagree	Mildly Agree	Moderately Agree	Strongly Agree

Employers should take into consideration students' university affiliation in making their decisions.

-3	-2	-1	0	1	2	3
Strongly Disagree	Moderately Disagree	Mildly Disagree	Neither Agree Nor Disagree	Mildly Agree	Moderately Agree	Strongly Agree

Employers should treat every job applicant as an individual, and look at their skills and qualifications without considering the university they attended to get them.

-3	-2	-1	0	1	2	3
Strongly Disagree	Moderately Disagree	Mildly Disagree	Neither Agree Nor Disagree	Mildly Agree	Moderately Agree	Strongly Agree

Employers shouldn't be biased against Carleton students, but rather they should recognize some of their strongpoints.

-3	-2	-1	0	1	2	3
Strongly Disagree	Moderately Disagree	Mildly Disagree	Neither Agree Nor Disagree	Mildly Agree	Moderately Agree	Strongly Agree

Appendix I: Global Personal Trait Self-Esteem

I USUALLY feel good about myself.

-3	-2	-1	0	1	2	3
Strongly Disagree	Moderately Disagree	Mildly Disagree	Neither Agree Nor Disagree	Mildly Agree	Moderately Agree	Strongly Agree

I am USUALLY happy.

-3	-2	-1	0	1	2	3
Strongly Disagree	Moderately Disagree	Mildly Disagree	Neither Agree Nor Disagree	Mildly Agree	Moderately Agree	Strongly Agree

I USUALLY feel confident about myself.

-3	-2	-1	0	1	2	3
Strongly Disagree	Moderately Disagree	Mildly Disagree	Neither Agree Nor Disagree	Mildly Agree	Moderately Agree	Strongly Agree

**Appendix J: Pre Self-Enhancement Modified State Self Esteem Scale
(Heatherton & Polivy, 1991)**

Given that you are a student at Carleton University, this questionnaire is designed to measure what you feel about yourself. There is, of course, no right answer for any statement. The best answer is what you feel is true of yourself at this moment. Be sure to answer all of the items, even if you are not certain of the best answer. For each item, circle the number that best describes what you are thinking or feeling RIGHT NOW. To do so, please use the following rating scale:

	-3	-2	-1	0	1	2	3
	Strongly untrue of	Moderately untrue of me	Mildly untrue of me	Neither true nor untrue	Mildly true of me	Moderately true of me	Strongly true of me
1. I feel confident about my abilities.	-3	-2	-1	0	1	2	3
2. I am worried about whether I am regarded as a success or failure.	-3	-2	-1	0	1	2	3
3. I feel frustrated or rattled about my own competence.	-3	-2	-1	0	1	2	3
4. I feel that I have trouble understanding things that I read.	-3	-2	-1	0	1	2	3
5. I feel that others respect and admire me.	-3	-2	-1	0	1	2	3
6. At this moment, I feel self-conscious.	-3	-2	-1	0	1	2	3
7. I feel as smart as others.	-3	-2	-1	0	1	2	3
8. I feel displeased with myself.	-3	-2	-1	0	1	2	3
9. I feel good about myself.	-3	-2	-1	0	1	2	3
10. I am worried about what other people think of me.	-3	-2	-1	0	1	2	3
11. I feel confident that I understand things.	-3	-2	-1	0	1	2	3
12. I feel inferior to others at this moment.	-3	-2	-1	0	1	2	3
13. I feel concerned about the impression I am making.	-3	-2	-1	0	1	2	3
14. I feel that I have less scholastic ability right now than others	-3	-2	-1	0	1	2	3
15. I feel like I'm not doing well as a student.	-3	-2	-1	0	1	2	3
16. I am worried about looking foolish.	-3	-2	-1	0	1	2	3
17. I feel very inspired.	-3	-2	-1	0	1	2	3
18. I have very little interest in what's going on around me.	-3	-2	-1	0	1	2	3
19. I feel rather distressed.	-3	-2	-1	0	1	2	3
20. I'm feeling calm and relaxed.	-3	-2	-1	0	1	2	3

Appendix K: Perceived Stereotypes of Ingroup Members

We would like to know your general impression of students from Carleton University. For each of the following adjectives, please indicate the extent to which you think the characteristic is descriptive of the typical student from Carleton University. To do so, please use the following rating scale:

0	1	2	3	4
Not at all descriptive	A little bit descriptive	Somewhat descriptive	Very descriptive	Extremely descriptive

Typical Carleton University students are:

- _____ Intelligent
- _____ Lazy
- _____ Hard-working
- _____ Strong-willed
- _____ Easily influenced
- _____ Unable to deal with new ideas
- _____ Adaptable
- _____ Serious
- _____ Easy-going
- _____ Driven to get things done
- _____ Not interested in learning
- _____ Accomplished
- _____ Closed-minded
- _____ Competent
- _____ Likable
- _____ Resourceful
- _____ Physically healthy
- _____ Committed to their work
- _____ Ill-prepared for work
- _____ Good decision-makers
- _____ Responsible
- _____ Unmotivated
- _____ Social
- _____ Innovative
- _____ Flexible
- _____ Intellectually dull
- _____ Interesting to talk to
- _____ Skilled

Appendix L: Perceived Homogeneity of Ingroup

While you may have an idea that certain characteristics are descriptive of the typical student at Carleton, you might think that students are very similar to one another on some characteristics, and very different from one another on others. We would like you to give us an indication of how similar you see students at Carleton on each characteristic. So for example, even if you thought that Carleton students are typically 'happy', do you think all students at Carleton are happy, or that students differ a lot on this characteristic? To do so, please use the following rating scale:

0	1	2	3	4
Not at all similar to one another	A little bit similar	Somewhat similar	Very similar	Extremely similar to one another

How similar are Carleton University students to one another in terms of being....?

- _____ Intelligent
- _____ Lazy
- _____ Hard-working
- _____ Strong-willed
- _____ Easily influenced
- _____ Unable to deal with new ideas
- _____ Adaptable
- _____ Serious
- _____ Easy-going
- _____ Driven to get things done
- _____ Not interested in learning
- _____ Accomplished
- _____ Closed-minded
- _____ Competent
- _____ Likable
- _____ Resourceful
- _____ Innovative
- _____ Flexible
- _____ Intellectually dull
- _____ Interesting to talk to
- _____ Skilled
- _____ Physically healthy
- _____ Committed to their work
- _____ Ill-prepared for work
- _____ Good decision-makers
- _____ Responsible
- _____ Unmotivated
- _____ Social

Appendix M: Perceived Stereotypes of Outgroup Members

We would like to know your general impression of students from other universities, and in particular Queen's University (as a point of comparison). For each of the following adjectives, please indicate the extent to which you think the characteristic is descriptive of the typical student from Queen's University. To do so, please use the following rating scale:

0	1	2	3	4
Not at all descriptive	A little bit descriptive	Somewhat descriptive	Very descriptive	Extremely descriptive

Typical students from Queen's University are:

- _____ Intelligent
- _____ Lazy
- _____ Hard-working
- _____ Strong-willed
- _____ Easily influenced
- _____ Unable to deal with new ideas
- _____ Adaptable
- _____ Serious
- _____ Easy-going
- _____ Driven to get things done
- _____ Not interested in learning
- _____ Accomplished
- _____ Closed-minded
- _____ Competent
- _____ Likable
- _____ Resourceful
- _____ Innovative
- _____ Flexible
- _____ Intellectually dull
- _____ Interesting to talk to
- _____ Skilled
- _____ Physically healthy
- _____ Committed to their work
- _____ Ill-prepared for work
- _____ Good decision-makers
- _____ Responsible
- _____ Unmotivated
- _____ Social

Appendix N: Perceived Homogeneity of Outgroup Members

While you may have an idea that certain characteristics are descriptive of students at Queen's University, you might think that students at Queen's are very similar to one another on some characteristics, and very different from one another on others. We would like you to give us an indication of how similar you see students at Queen's University on each characteristic. To do so, please use the following rating scale:

0	1	2	3	4
Not at all similar to one another	A little bit similar	Somewhat similar	Very similar	Extremely similar to one another

How similar do you think students from Queen's University are to one another in terms of being....?

- _____ Intelligent
- _____ Lazy
- _____ Hard-working
- _____ Strong-willed
- _____ Easily influenced
- _____ Unable to deal with new ideas
- _____ Adaptable
- _____ Serious
- _____ Easy-going
- _____ Driven to get things done
- _____ Not interested in learning
- _____ Accomplished
- _____ Closed-minded
- _____ Competent
- _____ Likable
- _____ Resourceful
- _____ Innovative
- _____ Flexible
- _____ Intellectually dull
- _____ Interesting to talk to
- _____ Skilled
- _____ Physically healthy
- _____ Committed to their work
- _____ Ill-prepared for work
- _____ Good decision-makers
- _____ Responsible
- _____ Unmotivated
- _____ Social

Appendix O: Post Self-Enhancement Modified State Self Esteem Scale

Modified State Self-Esteem Scale (Heatherton & Polivy, 1991)

Given that you are a student at Carleton University, this questionnaire is designed to measure what you feel about yourself. There is, of course, no right answer for any statement. The best answer is what you feel is true of yourself at this moment. Be sure to answer all of the items, even if you are not certain of the best answer. For each item, circle the number that best describes what you are thinking or feeling RIGHT NOW. To do so, please use the following rating scale:

	-3	-2	-1	0	1	2	3				
	Strongly untrue of me	Moderately untrue of me	Mildly untrue of me	Neither true nor untrue	Mildly true of me	Moderately true of me	Strongly true of me				
1. I feel confident about my abilities.					-3	-2	-1	0	1	2	3
2. I am worried about whether I am regarded as a success or failure.					-3	-2	-1	0	1	2	3
3. I feel frustrated or rattled about my own competence.					-3	-2	-1	0	1	2	3
4. I feel that I have trouble understanding things that I read.					-3	-2	-1	0	1	2	3
5. I feel that others respect and admire me.					-3	-2	-1	0	1	2	3
6. At this moment, I feel self-conscious.					-3	-2	-1	0	1	2	3
7. I feel as smart as others.					-3	-2	-1	0	1	2	3
8. I feel displeased with myself.					-3	-2	-1	0	1	2	3
9. I feel good about myself.					-3	-2	-1	0	1	2	3
10. I am worried about what other people think of me.					-3	-2	-1	0	1	2	3
11. I feel confident that I understand things.					-3	-2	-1	0	1	2	3
12. I feel inferior to others at this moment.					-3	-2	-1	0	1	2	3
13. I feel concerned about the impression I am making.					-3	-2	-1	0	1	2	3
14. I feel that I have less scholastic ability right now than others					-3	-2	-1	0	1	2	3
15. I feel like I'm not doing well as a student.					-3	-2	-1	0	1	2	3
16. I am worried about looking foolish.					-3	-2	-1	0	1	2	3
17. I feel very inspired.					-3	-2	-1	0	1	2	3
18. I have very little interest in what's going on around me.					-3	-2	-1	0	1	2	3
19. I feel rather distressed.					-3	-2	-1	0	1	2	3
20. I'm feeling calm and relaxed.					-3	-2	-1	0	1	2	3

Appendix P: Debriefing

There is more to this study than I have told you about so far. But before I tell you exactly what it is, I would like to explain why it is necessary in some kinds of psychological studies not to tell people all about the purpose of the study at the very beginning. In some kinds of studies, if we tell people what the purpose of the experiment is and what we predict about how they will react under particular conditions, then they might deliberately do whatever it is they think that we want them to do, just to help us out and give us the results that they think we want. If that happened, their reactions would not be a good indication of how they might react in a situation in everyday life, where they didn't think they were being studied or that a psychologist was predicting that they would react in a certain way. What would be influencing them is what they thought the purpose of our study was rather than the specific conditions that we are trying to investigate. It is also possible that the opposite might occur and that people might think that if we predicted that they would do a certain thing, they might deliberately not do that to show us that we can't figure them out. That would also make the results invalid, because again what people would be responding to is what they thought we were looking for rather than responding naturally as they would in everyday situations. This is not a problem in all studies. For example, in a study on learning, if you wanted to have people learn something and then test them, you might want them to know exactly what they were going to be asked to recall so that they would do their best and learn as well as they could.

Now I would like to explain exactly what we are trying to get at in this study, and why we couldn't tell you everything from the beginning.

These days, people from groups that experience a lot of negative social prejudice and discrimination are finding ways to embrace their identity, so that they not only feel good about belonging to the group, but the group members also work together to provide social support, and take collective action. Indeed, counter to the idea that people don't want to associate themselves with negatively-viewed social groups, identification with a negatively-valued group can provide a stronger basis for group solidarity and action than with a positively-valued group (Abrams & Hogg, 1988; Brewer, 1991). In this study, we were trying to look at the effects of belonging to a group that is viewed negatively. Therefore, most students in this study were given a very negative description of what it means to be at Carleton. For the purposes of comparison, others were given a very positive description, while still others weren't given a description at all.

Awareness of the personal relevance of membership in a group that society views or treats negatively is often not a positive experience, and can have severely negative implications for the individual. It is not surprising that much research has indicated that individuals will attempt to deny membership in a stigmatized group, either by acting as though they do not belong or by finding cognitive mechanisms to minimize the self-relevance of their membership in the group. In this study, we thought many students who viewed being at Carleton as negative might also try to downplay that they were Carleton

students by endorsing a view that they should be treated as individuals, and that employers should ignore that they came from Carleton. They may see themselves as different from other students at Carleton University.

However, sometimes denial is impossible. As well, there exist members of social groups who could publicly deny membership, but choose to be visible members of the group despite its social stigmatization (e.g., students wearing a Carleton jacket). Under these circumstances, individuals could simply be accepting a negative identity. However, the negative self-esteem that would be expected to co-occur with such acceptance is not always evident (e.g., Crocker & Major, 1989). Thus, group members must find a way of construing their group membership that allows for a positive sense of self. In other words, such students do in fact feel good about being at Carleton despite the negative views. In particular, in the present study it is predicted that the need for positive self-affirmation derived from being with and interacting with other members of the group provides a mechanism by which group members are able to find the positive side to being in the group. In other words, by seeking such affiliation, a group member might expect to find that some members of the group are similar to themselves and hence undeserving of the negative treatment. If students feel like they can interact with other students who are more like themselves than like the negative stereotype, then they'll feel better about belonging to the group, and they will be more likely to try to do things to change how students at Carleton are treated.

FOR PARTICIPANTS IN NEGATIVE/NONSALIENT IDENTITY CONDITIONS:

So what are Carleton students really like? Well there may be several ways of looking at them. Elicit the students' opinions re what some of the positive aspects to the following depictions might be. End with description given to Positive Identity students as an alternative portrayal

- last chance u (gives everyone a chance)
- having many students who work part-time (highly committed, diverse student body)
- library resources (have many resources in city, learn to be highly resourceful)
- large first/second year classes (changing with 1st year seminars to help, small senior classes where specialization more critical)

FOR ALL STUDENTS:

Based on the most recent McLean's magazine survey, and some of the statistics that have been gathered about Carleton University, Carleton is indeed highly competitive. Just so you have some idea of where Carleton stands, and what some of the priorities are, we have put together a summary for you.

I would like to emphasize that this study was not a test of your ability or your character. There were no correct responses. People's natural responses are what we are looking for. We will be combining the data, such that all persons will remain anonymous. In order for us to draw any conclusions, we will have to combine the data that we got from you together with data from other people so that we will have enough data to draw conclusions about the average person's reactions. What this means is that it is going to be necessary for us to ask you not to say anything about the study to anyone

else. If you talked to someone else about the study and told them all the things I just told you and then they were in the study, that would be just the same as if I told them at the beginning all about the whole purpose of the study; their reactions wouldn't be natural, and their results couldn't be used and combined with the data from you and other people. If that happened, the whole study would really be wasted; the data we got from you and other people would be useless because we wouldn't be sure whose data was valid and whose wasn't. We need to ask you not to tell others about the study.

If anybody asks you about the study, just tell them it was a study on students at Carleton and how they respond to how they are treated in the workplace. You're not lying, as this really is the context in which we are looking at these ideas. You don't need to make it a mystery, just something you've been asked not to talk about any more in case they bias their own reactions. If they want to know more, they can sign up for it.

Do you have any questions? Comments? Suggestions?

Thank-you for your help.

Appendix R: Carleton University Fact Sheet

As a student of Carleton University you are a member of a scholarly community committed to academic excellence. Indeed, the 1990s, according to the Handbook for New Students, represents a time of restoration. Committed to the intellectual and social development of students, the president of Carleton, Dr. R. Van Loon began a process of renewal and restructuring of the academic program in 1996, with the aim of not only improving the quality of the program, but ensuring a good match to student and societal demands.

As noted in the Handbook for New Students, Carleton boasts outstanding scholars and scholarship. Indeed, this is backed up by the 1998 McLean's survey, in which Carleton was ranked third over nine other universities in terms of the amount of prestigious medical/science grants awarded to faculty members. Carleton also achieved this ranking (tied with Simon Fraser University) in terms of the number of students to win national awards. Clearly, Carleton does not attract the academic 'under-achievers' for which it was once reputed.

Rated number one in terms of attracting out-of-province first year students speaks to Carleton's burgeoning reputation, and ability to meet a diversity of interests. The number of alumni who make contributions to a university may also be considered to reflect the strength of a university's reputation. Past students who contribute to their alma-mater do so as a reflection of their devotion to the institution that contributed to who they presently are. And in fact, Carleton ranked second amongst 12 other universities in this domain.

Finally, as McLean's points out, "the financial resources at a university's disposal determines its ability to provide students with many valuable opportunities". Within this realm, Carleton is clearly devoted to its students. Testimonial to Carleton's commitment to both the intellectual and social development of its students is exemplified by its rating in terms of the percentage of total operating expenditures devoted to two realms which are inextricably linked to academic excellence, a) scholarship and bursaries, and b) student services. Carleton earned a ranking of 4th and 3rd out of 12 in these categories, respectively.

In sum, Carleton University has evolved into an institution that ranks among the best comprehensive universities on a number of measures which speak to a university's scholarly reputation and commitment to an academic environment.

Appendix S: Contact Sheet

In the event that you have any concerns about this study, or anything you wish to discuss further, here are a list of people you can contact.

Barbara Cole (Researcher, 520-2600, X2683)

Dr. K. Matheson (Principle Investigator, 520-2648)

Dr. M. Gick (Chair of Dept. of Psychology Ethics Committee, 520-2600, X2664)

Dr. K. Matheson (Chair, Dept. of Psychology, 520-2648)

Appendix T: Manipulation Check

Past research from this program of research indicates that Carleton University students are perceived to be:

1	2	3	4	5	6	7
Competent						Incompetent

1	2	3	4	5	6	7
Well-trained						Poorly trained

1	2	3	4	5	6	7
Resourceful						Unaware of alternatives

1	2	3	4	5	6	7
Ill-prepared for workforce						Well-prepared for workforce

1	2	3	4	5	6	7
Lacking innovative ideas						Full of innovative ideas

1	2	3	4	5	6	7
Committed to studies						Not committed to studies

Appendix U: Correlations among Variables

Pearson Correlations Among Variables Reflecting Responses to Social Identity Condition

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13
State self-esteem													
1. Appearance													
2. Performance	.43**												
3. Social	.48**	.43**											
Collective identity													
4. Centrality	.25**	.08	.14										
5. Private regard	.35**	.21*	.27**	.49**									
6. Public regard	.43**	.24**	.32	.29**	.47**								
Stereotypes													
Competence													
7. Ingroup	.16	.07	.01	.17	.45**	.31**							
8. Outgroup	-.02	.05	.08	.09	-.01	-.07	.29**						
Sociability													
9. Ingroup	.08	-.06	-.07	-.02	.00	.20*	.14	-.01					
10. Outgroup	-.16	-.07	-.02	-.07	-.04	-.04	.01	.18	.56**				
Perceived homogeneity													
Competence													
11. Ingroup	.15	.14	.12	.20*	.43	.16	.51**	.36**	.00	.10			
12. Outgroup	.06	.07	.03	.04	-.06	.09	.16	.26**	.20*	.01	.18		
Sociability													
13. Ingroup	.25**	.15	.14	.12	.34	.23	.42**	.13	.59**	.38**	.52**	.07	
14. Outgroup	-.10	-.09	-.09	.05	.03	.02	.12	.13	.60**	.57**	.04	.36**	.44**

Note. * $p < .05$. ** $p < .01$.