

Recognizing discrimination explicitly while denying it implicitly: Implicit social identity  
protection

by

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### Author's Declaration

I hereby declare that I am the sole author of this thesis. This is a true copy of the thesis, including any required final revisions, as accepted by my examiners.

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## Abstract

Past research suggests that members of devalued groups recognize their group is discriminated against. Do the implicit responses of members of these groups demonstrate the same pattern? I argue that they do not and that this is due to a motivated protection of members of devalued groups' social identity. Study 1 demonstrates that, at an explicit level African-Canadians recognize that their group is discriminated against, but at an implicit level African-Canadians think that most people like their group to a greater extent than do European-Canadians. Study 2 replicates this implicit finding but demonstrates that devalued and majority groups do not have different implicit normative regard about a non-devalued group. Study 3 again replicates the implicit finding with Muslim participants while demonstrating that, when affirmed, this group difference disappears. Study 4 demonstrates that implicit normative regard can predict collective action over and above implicit attitudes and explicit normative regard. The implications for social identity theory and collective action are discussed.

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## Chapter 1: Introduction

Members of devalued groups are often aware of the discrimination that their groups face (Crocker, Luhtanen, Blaine, & Broadnax, 1994; Kahn, Ho, Sidanius, & Pratto, 2009) and the recognition of this pervasive discrimination can negatively impact their self-esteem (Branscombe, Schmitt, & Harvey, 1999). Yet, according to social identity theorists (Tajfel & Turner, 1979), members of these groups are motivated to have a positive social identity. How do members of devalued groups reconcile their desire to have a positive social identity with the social reality that their group is not regarded positively? I suggest that members of devalued groups' motivation to maintain a positive social identity is limited by the reality of the inequality that their groups face, making it difficult for members of such groups to believe that others view their group positively at an explicit level. This motive, however, might be evident when others' regard is measured implicitly (what I call implicit normative regard) and I predict that it will be a potent predictor of behaviour.

Theorizing and research on maintaining a positive social identity has almost exclusively focused on maintaining this identity at a conscious level. Such maintenance strategies have included exiting one's group to join a higher status group (Tajfel & Turner, 1979); forming a positive attitude towards one's group, perhaps by devaluing domains in which one's group does not perform well; or engaging in collective action in an effort to improve the actual social standing of one's group (Tajfel & Turner, 1979). Because using these methods of social identity maintenance may require consciously recognizing that one's group has low status in society, however, they may all be restricted by reality. For example, it may be difficult for Blacks to engage in collective action to improve their group's condition

if they believe such actions can never lead to advancement of their group. Similarly, it is difficult for members of devalued groups to explicitly believe that most people value their group while also recognizing that their group is discriminated against, making it challenging to use this method to maintain a positive social identity at an explicit level.

It is possible, however, that when beliefs about how most people view one's devalued group are measured outside of awareness (Greenwald, McGhee, & Schwartz, 1998), the conflict between believing that one's group is devalued and explicitly stating that one's group is valued may be eliminated. If this reasoning is correct, when normative regard is measured at an implicit level, then the motive to maintain a positive social identity will be evident. Specifically, although the reality of discrimination may force members of devalued groups to explicitly recognize that their group is viewed negatively in society, at an implicit level they will have positive normative regard.

In other research (Spencer, Peach, Yoshida, & Zanna, 2010; Yoshida, Peach, Zanna, & Spencer, 2010) my co-authors and I have suggested that to function in society, individuals need to have a readily-accessible (or, implicit) sense of how others react to social groups, their own included. I reason that such implicit normative regard is related to, but not redundant with implicit attitudes, which measure personal associations with social groups. Implicit normative regard and implicit attitudes should be related because they both assess the same groups. For example, implicit associations between what *society* likes and feminists and what *individual people* like and feminists are both likely to be influenced at least to some extent by characteristics of feminists. In addition, over time implicit normative regard and

implicit attitudes are likely to influence one another, thus increasing the extent to which they are related.

I reason that these constructs will not be redundant, however, for two reasons. First, implicit attitudes and implicit normative regard may have different antecedents. Following the reasoning of Fazio and his colleagues (Fazio, Sanbonmatsu, Powell, & Kardes, 1986; Fazio & Williams, 1986; Olson & Fazio, 2004) implicit attitudes often form from direct experience. In contrast, my co-authors and I have argued that implicit normative regard is derived from how groups are depicted and treated in society. For example, when participants were exposed to a negative joke about Muslims to which the audience laughed they had more negative implicit normative regard towards Muslims than when the audience did not laugh. The audience's reaction, however, did not influence participants' implicit attitudes towards Muslims (Yoshida et al., 2010). I am not arguing, however, that implicit normative regard is formed simply by passively receiving cultural media depictions of one's group. Instead, I theorize that people actively develop associations between their group and society's view of their group and that their social identity concerns shape the development of these associations. From this perspective cultural portrayals of one's group provide the clay, but social identity related motives sculpt the final shape of implicit normative regard.

Second, at least at times individuals may be motivated to not conform with society (McClelland, Atkinson, Clark, & Lowell, 1953; Thrash, Elliot, & Schultheiss, 2007). This motivation may lead them to adopt different perspectives and behaviour, creating different individual associations with social groups than societal associations with these same groups.

For example, a white civil rights activist who is committed to reducing prejudice and discrimination in society might develop positive implicit attitudes towards Blacks, but have negative implicit normative regard toward Blacks—personally their associations between what they like and Blacks are positive, but their implicit associations between what society likes and Blacks is negative. In fact, Bangard and Fein (2008) have provided evidence for just this pattern of findings.

To measure implicit normative regard, I modified the Implicit Association Test (IAT, Greenwald et al., 1998). I based this procedure on previous research in which my co-authors and I have measured a broader set of implicit normative evaluations. Operationally I measure implicit normative evaluations as the association between what most people like and specific objects. Thus, implicit normative regard is a specific type of implicit normative evaluation which I define as the automatic association between “most people like” and specified social groups. Although I cannot review all validating data here, my co-authors and I have evidence that measures of implicit normative evaluations correlate modestly with explicit measures of norms and even more modestly with implicit attitudes. Furthermore, my co-authors and I have evidence that these measures uniquely predict racial discrimination, and whether female engineers intend to stay in school (Spencer et al., 2010; Yoshida et al., 2010). Thus, in other research I have evidence that measuring normative evaluations using a modified IAT procedure can create a measure that is distinct from implicit attitudes and explicit normative evaluations and that uniquely predicts meaningful behaviour.

## Overview of Studies

I utilize this measure to test my prediction that members of devalued groups will show more positive normative regard on implicit measures than on explicit measures. Based on social identity theory (Tajfel & Turner, 1979) I argue that members of devalued groups are motivated to maintain positive normative regard about their group, but the reality of discrimination impedes this motivation at an explicit level. Stating explicitly that most people like one's group when often confronted with discrimination is a difficult proposition to maintain when consciously considered. In contrast, at an implicit level when such contradictions are not consciously considered, maintaining a belief that one's group is viewed positively should be easier. I test this possibility in Study 1.

The reality of discrimination may make it difficult for members of devalued groups to maintain positive explicit normative regard about one's group, but it should not affect their ability to like their group. I therefore suggest that members of devalued groups will have positive explicit attitudes, as well as positive implicit attitudes towards their group. I also test this possibility in Study 1.

To maintain a positive social identity, members of devalued groups do not need to have positive implicit attitudes and normative regard towards all groups, but only towards groups to which they belong. Thus, I predict that Asian-Canadians will have positive implicit attitudes and normative regard towards Asians, but not towards a group to which they did not belong (such as the elderly). I will test this possibility in Study 2.

I suggest that people maintain positive implicit normative regard in order to protect their social identity, but there may be many ways that a positive social identity can be maintained. Because positive implicit normative regard is influenced by members of devalued groups' motivation to see their group positively and consequently to see themselves positively, when this motivation is satisfied using another means (such as through an affirmation (Steele, 1988)), I predict that members of these groups will have less positive implicit normative regard toward their group. I test this possibility in Study 3 by affirming participants' group identity and then assessing their implicit and explicit normative regard. I expect that, because implicit normative regard is used to affirm members of devalued groups' social identity, an affirmation will actually lead to *less* positive implicit normative regard.

Finally, I suggest that implicit normative regard can uniquely predict meaningful behaviour. Specifically, I suggest that members of devalued groups' implicit normative regard will predict their tendency to engage in collective action, such that if members of devalued groups believe that most people like their group, they will be less likely to engage in collective action to restore their group's status. To test this possibility I purposely created a situation in which I thought implicit normative regard would predict behaviour, by priming participants' collective identity and measuring behaviour likely to be influenced by implicit processes. In this situation, I expect that implicit normative regard will predict intentions to engage in collective action when behaviour is framed as advancing one's group, but will not predict intentions to engage in collective action when behaviour is not framed as advancing one's group. I test this possibility in Study 4.

## Chapter 2

### Study 1

African-Canadians are often the targets of prejudice and discrimination (Taylor, 1997). What effect does this have on their overt recognition of the struggles that their group faces? What effect does this have on their perception of how most people view their group when it is measured implicitly? There are reasons to expect divergent findings.

Based on evidence suggesting that members of devalued groups recognize that prejudice towards their group exists (Crocker et al., 1994) I expect that at an explicit level, African-Canadians will report that there are negative norms toward their group. At an implicit level, however, African-Canadians will have associations suggesting most people like their group. In addition, because there is no contradiction between being the target of discrimination and liking one's group, I suggest that the reality of discrimination will not influence members of devalued groups' attitudes towards their own group. I therefore expect that, compared to European-Canadians, African-Canadians will have positive attitudes towards their group whether assessed explicitly or implicitly.

In this study, I assessed African-Canadians' implicit and explicit attitudes and normative regard about African-Canadians. I assessed whether their implicit normative regard was more positive than their explicit normative regard. Furthermore, I compared their responses to those of European-Canadians in order to assess whether African-Canadians had more positive implicit and explicit attitudes, and more positive implicit normative regard, than European-Canadians.

## *Method*

### *Participants*

Eighty-nine undergraduate students at the University of Waterloo and York University participated in exchange for course credit towards their introductory psychology class, or for payment of \$8.00 Canadian. The African-Canadian sample included participants who were born in Canada (33) and participants who were not (37).<sup>1</sup> Nineteen participants were European-Canadians born in Canada. In total, there were 21 men, 66 women, and 2 who did not indicate their gender (aged 17- 45, mean age 22.61).

### *Materials*

*Implicit attitudes.* Implicit attitudes were assessed using a modified version of the Implicit Association Test (IAT, Olson & Fazio, 2004). Participants were asked to distinguish between “things you might like or dislike,” and the category labels were “I like/I don’t like.” Participants were also asked to distinguish between faces of Black and White targets (Gunz, 2004) and the category labels were “Black/White” (see Appendix A1, page 58).

The IAT contained five blocks of trials. The first block was a practice block, in which participants categorized words such as “party” and “disease” to the evaluative category labels “I like/I don’t like.” The second block was also a practice block, in which

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<sup>1</sup>Of the participants not born in Canada, 6 were born in African countries, 4 from Caribbean countries, and 1 from Italy. The rest of the participants indicated they were not born in Canada, but did not indicate in which country they were born. There were no significant differences between African-Canadian participants who were born in Canada and those not born in Canada on any measures, so we collapsed across country of origin when analyzing data.



participants categorized the faces of Black and White targets using the category labels “Black/White.” The third block was a critical block, in which the category labels, “I like” and “Black” and “I don’t like” and “White,” shared the same response key. The fourth block was another practice block, in which participants had to categorize Black and White targets, and the category labels were reversed from Block 2 and 3. The fifth block was also a critical block, in which the category labels, “I like” and “White” and “I don’t like” and “Black,” shared the same response key. I subtracted the reaction times from the second critical block (Block 5) from the first critical block (Block 3). I then reverse scored this measure so that higher numbers indicated more positive implicit attitudes towards Blacks.

*Implicit normative regard.* The measure of implicit normative regard was the same as the implicit attitude measure except that participants were asked to distinguish between “things that most people like or dislike,” and the words were characterized as referring to “what people in North America actually like, not what they should like.” The category labels “most people like/most people don’t like” replaced the category labels “I like/I don’t like.” All other aspects of the task were the same as the implicit attitude measure. Again, this measure was reverse scored so that higher numbers indicated more positive implicit normative regard towards Blacks (Yoshida et al., 2010).

*Explicit attitudes and normative regard.* Participants completed several semantic differentials. They completed a semantic differential assessing their attitudes towards Black people, from 1 (*I like extremely*) to 7 (*I dislike extremely*), and completed a comparable semantic differential assessing their attitudes towards White people. They also completed

two normative semantic differentials assessing their perceived normative regard towards Black people, and towards White people, from 1 (*most people like extremely*) to 7 (*most people dislike extremely*) (see Appendix A2, page 59). I calculated the explicit measures by subtracting the scores for Blacks from the scores for Whites. Because low numbers indicate greater liking for the group, higher numbers on these measures indicates more positive explicit attitudes and normative regard for Blacks relative to Whites.

*Perceived Bias in the Assessment of Merit* (Son Hing, Bobocel, & Zanna, 2002). This 22 item scale assessed participants' perception that visible minorities are disadvantaged in the workforce. An example item from this scale is "Historically, subtle personal biases of job interviewers disadvantaged visible minority job applicants in the assessment of their qualifications." The item responses ranged from 1 (*strongly disagree*) to 7 (*strongly agree*) (Cronbach's  $\alpha = .89$ ).

### *Procedure*

Participants completed two online sessions, each 4-7 days apart, in a counterbalanced order. They were told the purpose of the study was to assess their reactions to various objects and social groups. IATs assessing implicit attitudes and implicit normative regard were completed during separate online sessions, to reduce potential carry-over effects. Explicit attitudes and normative regard were collected in the same session as the comparable IATs. Not all participants completed all measures, and so I included all possible data in each analysis and did not exclude participants with missing data. Once participants completed the

sessions, they received partial course credit or payment, and were debriefed and thanked for their participation.

### *Results and Discussion*

*Calculation of IAT scores.* Scores on the IAT were calculated following procedures described by Jordan, Spencer, and Zanna (2005).<sup>2</sup> Scores below 300 ms were recoded to 300 ms, and scores above 3000 ms to 3000 ms. Errors trials were excluded from calculations.<sup>3</sup> The reaction times obtained in the second critical block (Block 5) were subtracted from the first critical block (Block 3). If the category labels “I like” and “White” and “I don’t like” and “Black” are highly associated, participants will tend to be faster in Block 5 than Block 3. I then reverse scored this measure so that high scores indicated a stronger association between the positive evaluative label (such as “I like”) and “Black,” and between the negative evaluative label (such as “I don’t like”) and “White.”

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<sup>2</sup> If this data is scored using Greenwald, Nosek, and Banaji’s (2003) scoring method, the results of the studies are essentially the same, except that the interaction in Study 3 is no longer significant,  $F < 1$ , although the means show the same pattern as the results in Study 3.

<sup>3</sup> In this dissertation, there were no significant differences between the error rates of implicit attitudes and implicit normative regard in Study 1 ( $M_s = 3.7\%$  and  $3.8\%$  respectively),  $F < 1$ , or Study 4 ( $M_s = 10.9\%$  and  $10.7\%$  respectively). In Study 3, the mean error rate for the implicit normative regard measure was  $7.5\%$ . To test whether there was a significant difference between the error rates of implicit attitudes and implicit normative regard in Study 2 I conducted a 2 (IAT type: attitude vs. norm) X 2 (IAT target: Asian vs. elderly) mixed models ANOVA. There was a marginal main effect of IAT type,  $F(1, 73) = 3.52, p = .07$ , such that the implicit normative regard measures ( $M = 5.9\%$ ) tended to have higher error rates than implicit attitudes ( $M = 5.2\%$ ). There was a main effect of IAT target,  $F(1, 73) = 12.08, p = .001$ , such that the Asian IATs had higher error rates ( $M = 6.1\%$ ) than the elderly IATs ( $M = 5.0\%$ ). There was no interaction between these variables. Thus, over all the studies it appears that the error rates of implicit attitudes and implicit normative regard are roughly comparable.

*Correlations between measures.* Implicit normative regard was correlated with implicit attitudes,  $r(83) = .23, p = .03$ . Implicit attitudes were marginally correlated with explicit attitudes,  $r(87) = .18, p = .09$ , and with explicit norms,  $r(84) = .20, p = .06$ . No other correlations between implicit and explicit measures were significant (see Table A1, page 78).

*Relation of group membership to implicit and explicit attitudes.* Recall I predicted that African-Canadians would have both more positive explicit and implicit attitudes towards Blacks than would European-Canadians. Was this the case? Consistent with my predictions and as described in Table 1, African-Canadian participants had significantly more positive implicit attitudes towards Blacks than did European-Canadian participants,  $F(1, 87) = 12.95, p = .001$ . This difference in implicit attitudes remained significant when I controlled for explicit and implicit normative regard and explicit attitudes,  $\beta = .37, t(79) = 3.50, p = .001$ .

Table 1  
*Implicit and explicit attitudes of African-Canadian and European-Canadian participants.*

	implicit attitudes	explicit attitudes
European-Canadians	-104.17 (129.19)	0.05 (0.52)
African-Canadians	42.89 (164.67)	0.46 (1.06)

To make the explicit measures more comparable to the implicit measures I computed scores so that higher scores indicated more positive explicit attitudes towards Blacks. As depicted in Table 1, African-Canadian participants had marginally more positive attitudes towards Blacks vs. Whites than did European-Canadian participants,  $F(1, 85) = 2.57, p = .11$ .

Thus, African-Canadians tended to have more positive implicit and explicit attitudes towards Blacks than did European-Canadians.

I next tested whether there was a significant difference between implicit and explicit attitudes among African-Canadians and among European-Canadians. Because implicit and explicit attitudes (and normative regard) are on different scales, I recoded each measure to standard deviation units.<sup>4</sup> Further, because I was comparing these measures within race I computed the standard deviation for each race separately. I then conducted a 2 (attitude: implicit vs. explicit) X 2 (race: African-Canadian vs. European-Canadian) mixed measures ANOVA. There was a main effect of type of attitude, such that explicit attitudes towards Blacks ( $M = .34$ ) were more positive than implicit attitudes ( $M = .03$ ),  $F(1, 85) = 10.40, p = .002$ . There was also a main effect of race, such that African-Canadian participants ( $M = .34$ ), had more positive attitudes towards Blacks than did European-Canadian participants, ( $M = -.35$ ),  $F(1, 85) = 11.73, p = .001$ . These main effects were qualified by a two-way interaction,  $F(1, 85) = 5.41, p = .02$ . African-Canadian participants did not have significantly different implicit and explicit attitudes towards Blacks ( $M(\text{implicit}) = .27$ ;  $M(\text{explicit}) = .41$ ),

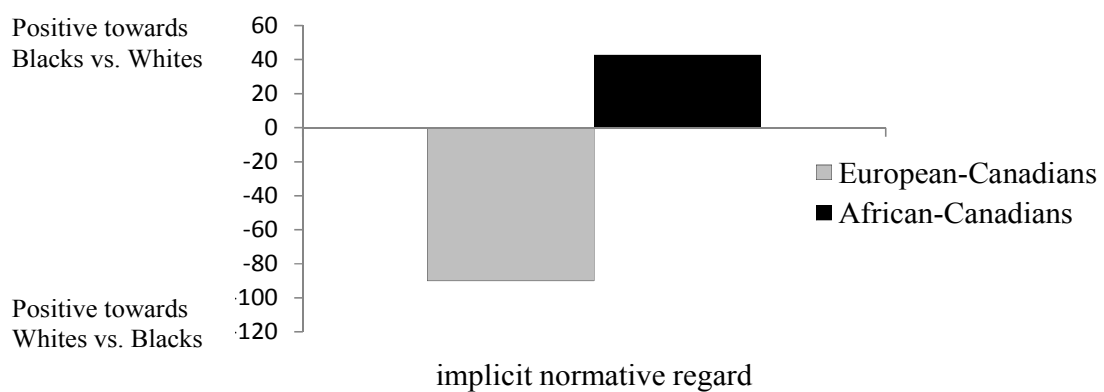
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<sup>4</sup> To convert participants' implicit attitude scores into standard deviation units, I first standardized implicit attitude scores separately among African-Canadian and European-Canadian participants. These scores were in standard deviation units meaning that one scale point represents one standard deviation unit for each measure, and the mean was not centered at zero but rather was the difference between the arithmetic mean and zero expressed in standard deviations. Specifically, I divided each groups' mean implicit attitude score by their standard deviation and added this constant to the standardized score. I repeated this procedure for explicit attitudes, and implicit and explicit normative regard where indicated. I did not standardize these variables (i.e., recoded in standard deviation units with a mean of zero) because comparing two measures with means of zero would not be a meaningful comparison.

$F < 1$ . European-Canadian participants, however, had more positive explicit ( $M = .10$ ) than implicit attitudes ( $M = -0.81$ ),  $F(1, 85) = 9.85, p = .002$ .

*Relation of group membership to implicit and explicit normative regard.* I predicted that, at an implicit level, African-Canadians would have more positive implicit normative regard towards Blacks (vs. Whites) than would European-Canadians, but that, due to the reality of discrimination that African-Canadians face, at an explicit level the opposite would be true. Consistent with my predictions and as depicted in Figure 1, African-Canadian participants had more positive implicit normative regard about Blacks ( $M = 42.71, SD = 168.87$ ) than did European-Canadian participants ( $M = -90.01, SD = 203.81$ ),  $F(1, 83) = 8.01, p = .006$ . The differences in implicit normative regard held when I controlled for explicit and implicit attitudes and explicit normative regard,  $\beta = .26, t(80) = 2.19, p = .03$ .

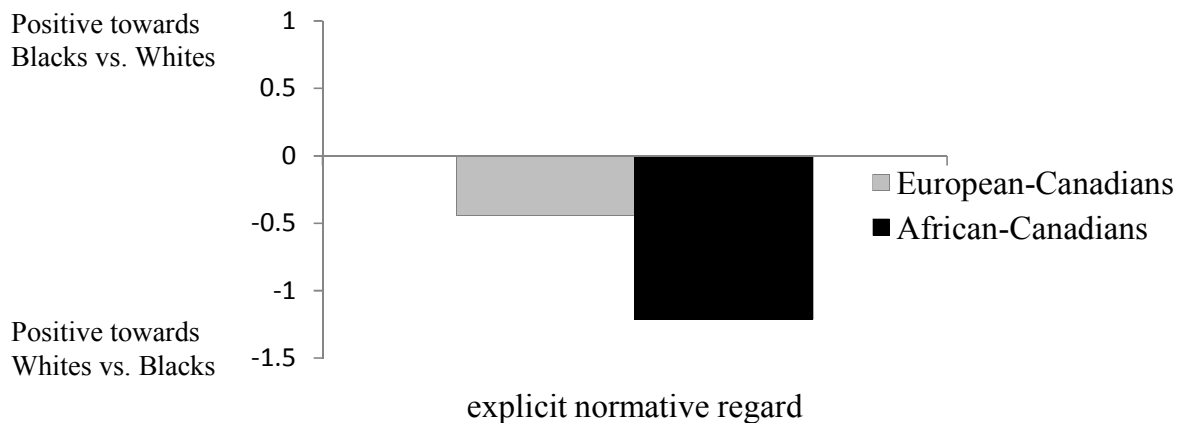
*Figure 1.* Mean scores on implicit normative regard towards Blacks for African-Canadian and European-Canadian participants.



*Note.* Higher scores indicate more positive normative regard towards Blacks vs. Whites.

I calculated explicit normative regard towards Blacks using the same methodology used for explicit attitudes described above. As depicted in Figure 2, African-Canadian participants reported marginally more negative normative regard towards Blacks vs. Whites ( $M = -1.21, SD = 1.70$ ) than did European-Canadian participants ( $M = -.44, SD = 1.04$ ),  $F(1, 84) = 3.28, p = .07$ . African-Canadian participants also perceived more discrimination against visible minorities ( $M = 5.21, SD = .81$ ) than did European-Canadian participants ( $M = 4.39, SD = .66$ ),  $F(1, 84) = 15.38, p = .0001$ . The results supported my predictions. Implicit normative regard towards Blacks versus Whites was more positive for African-Canadians than it was for European-Canadians, but the opposite was true for explicit normative regard.

*Figure 2.* Mean scores on explicit normative regard towards Blacks for African-Canadian and European-Canadian participants.



*Note.* Higher scores indicate more positive normative regard towards Blacks vs. Whites.

I again assessed whether the pattern of results for implicit normative regard was significantly different from that of explicit normative regard by calculating standard deviation units for implicit and explicit normative regard within each racial group and then conducting a 2 (normative regard: implicit vs. explicit) X 2 (race: African-Canadian vs. European-Canadian) mixed-measures ANOVA. There was a main effect of type of normative regard, such that implicit normative regard ( $M = 0.10$ ) was more positive than explicit normative regard ( $M = -0.66$ ),  $F(1, 83) = 7.26, p = .009$ . This main effect, however, was qualified by the predicted two-way interaction,  $F(1, 83) = 7.72, p = .007$ . African-Canadian participants had more positive implicit ( $M = 0.25$ ) than explicit normative regard ( $M = -.72$ ),  $F(1, 83) = 35.34, p < .0001$ . The implicit and explicit normative regard of European-Canadian participants did not differ ( $M(\text{implicit}) = -.44$ ;  $M(\text{explicit}) = -.43$ ),  $F < 1$ .

Thus, the results are consistent with my hypotheses— African-Canadian participants had more positive implicit normative regard about African-Canadians than did European-Canadian participants— supporting my assertion that African-Canadians are motivated to have a positive social identity as assessed by their responses on an implicit measure. Contrary to these implicit findings, but consistent with my hypothesis that the reality of discrimination constrains expressions of explicit normative regard, I found that African-Canadian participants tended to have more negative explicit normative regard about African-Canadians than did European-Canadians. African-Canadians also had more positive explicit and implicit attitudes towards African-Canadians than did European-Canadians, as predicted. Although implicit attitudes and implicit normative regard showed a similar pattern of results across



participants and were significantly correlated, based on the magnitude of the relationship it is clear that the two measures were not completely redundant.

*Replication of findings.* I sought to replicate the previous implicit findings with a different group. I chose feminists because they are not a visually identifiable group but are still devalued (Haddock & Zanna, 1994). Seventy-seven women participated for course credit.<sup>5</sup> I assessed participants' implicit normative regard about feminists by using the category labels "most people like/most people don't like" (to which participants categorized the same words as the IATs above) and "feminist/housewife" (to which participants categorized stereotyped words such as activist to feminist and domestic to housewife). I found that identification with feminism among women (assessed using three items, Reid & Percell, 2004)<sup>6</sup> was correlated with implicit normative regard,  $r(73) = .40, p = .0001$ , such that the more women identified with feminism the more they implicitly believed that most people like feminists. Identification with feminism was also correlated with implicit attitudes towards feminists,  $r(74) = .41, p = .001$ .<sup>7</sup> Thus, the responses of women who voluntarily

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<sup>5</sup> Two participants did not complete all measures.

<sup>6</sup>As in Study 4, we assessed women's identification with feminism using the items "I am a feminist," "I am strongly identified with being a feminist," and "being a feminist is central to who I am" (Reid & Percell, 2004). Because few women in our sample were highly identified with feminism we over-sampled women who scored above the midpoint on all three items.

<sup>7</sup> We could not control for implicit attitudes when determining whether identification with feminism predicted implicit normative regard (and vice versa) because identification with feminism and implicit attitudes interacted when predicting implicit normative regard,  $\beta = 2.91, t(70) = 3.15, p = .002$ , such that implicit attitudes and normative regard were highly correlated for women low in identification with feminism, but were less correlated when women were highly identified with feminism, indicating that, as we might predict, there is a smaller correlation between implicit attitudes and implicit normative regard for members of a devalued group.

identify with a devalued group also support my hypothesis that members of devalued groups are motivated to protect their social identity, replicating the previous findings with African-Canadian participants.

Thus, I have found that members of devalued groups have more positive implicit normative regard towards their group than do members of the majority among two groups. I suggest that members of devalued groups form positive implicit normative regard to protect their group identity. It is possible, however, that members of devalued and valued groups alike have different attitudes and normative regard about both groups they belong to and groups to which they do not belong. I test this possibility in Study 2.

## Study 2

In Study 1 I found that African-Canadians had more positive implicit normative regard towards their group than did European-Canadians. Because these social groups are pre-existing, however, it is possible that members of devalued groups and members of the majority simply have different normative regard towards all devalued groups, perhaps because they empathise with all groups with which they share a similar plight. In contrast, if members of devalued groups have positive implicit normative regard about their group in order to maintain a positive social identity, then, relative to members of the majority, members of devalued groups should only have more positive implicit normative regard about their own group and not about other devalued groups.

In order to examine this issue, I assessed Asian-Canadians and European-Canadians' implicit attitudes and normative regard about Asians and the elderly. Traditionally, Asian

cultures such as China have emphasized respect for the elderly and filial piety, whereas there is less focus on respect for the elderly within North American culture (Streib, 1987), suggesting that Asians should have more positive norms towards the elderly. Indeed, in other research my co-authors and I (Yoshida et al., 2010) found that immediately after arriving in Canada, Asian-Canadians had more positive implicit attitudes and normative regard towards the elderly than did European-Canadians. Once Asian-Canadian participants have been exposed to Canadian culture for a period of time, however, it is possible that they will take on the more negative norms towards the elderly found in Canada. This would suggest that members of devalued groups' positive implicit normative regard about their own group results from their motivation to protect their social identity rather than a general tendency to have positive implicit normative regard about all devalued groups.

Thus, I predicted that Asian-Canadian and European-Canadian participants would not differ in implicit attitudes or normative regard about the elderly. When assessing normative regard I focused on whether individuals *should* like the elderly not whether individuals *actually* like the elderly because Asian cultures tend to emphasize treating the elderly with respect to a greater extent than they emphasize evaluating the elderly positively (Sung, 2001). In contrast to their implicit normative regard towards the elderly, I predicted that Asian-Canadians' implicit normative regard about Asians would be more positive than that of European-Canadians. When assessing explicit normative regard I also focused on whether others should like Asians and the elderly. Because these beliefs are not directly constrained by the reality of discrimination I predicted that, unlike African-Canadians' explicit normative

regard in Study 1, Asian-Canadians would not necessarily have more negative explicit normative regard than European-Canadians. Similar to Study 1, however, I again predicted that Asian-Canadians would have more positive implicit and explicit attitudes towards Asians than would European-Canadians.

### *Method*

#### *Participants*

One hundred forty psychology students participated for course credit (83 European-Canadian, 57 Asian-Canadian, 34 male, 106 female, ages ranged from 17-46, mean age = 19.61). Asian-Canadian participants were born in Canada or had lived in Canada for at least 5 years, to ensure that they had enough exposure to Canadian culture to internalize Canadian views of the elderly.<sup>8</sup>

#### *Materials*

*Implicit attitudes about the elderly.* Again, participants categorized words to “I like/I don’t like” and photos of White old and young faces to “Old/Young” (see Appendix B2, page 63). Higher scores indicated more positive attitudes towards the elderly.

*Implicit attitudes about Asians.* This IAT was identical to the implicit attitude measure in Study 1 except that its category labels were “I like/I don’t like” and “Asian/White” (see Appendix B1, page 62). Participants categorized young male and

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<sup>8</sup> Of the Asian-Canadian participants not born in Canada, 10 were born in China, 20 in Hong Kong, 2 in South Korea, 4 in Taiwan, and 1 each in India, Pakistan, Thailand and the United States.

female Asian and White faces to their respective categories (see Appendix B2, page 63).

Higher scores indicated more positive implicit attitudes towards Asians.

*Implicit normative regard about the elderly.* Because Asian culture emphasizes that individuals should show respect for the elderly, in this study we assessed normative regard using the category labels “people should like/people shouldn’t like” and “Old/Young.”

Higher scores indicated more positive normative regard towards the elderly.

*Implicit normative regard about Asians.* This IAT had the category labels “people should like/people shouldn’t like” and “Asian/White.” Again, higher scores indicated more positive implicit normative regard towards Asians.

*Explicit attitudes about the elderly versus the young.* Participants were asked to indicate their attitudes towards the elderly (Cronbach’s  $\alpha = .90$ ) and towards the young (Cronbach’s  $\alpha = .93$ ) on the same 7-point scales as above (see Appendix B3, page 64). Attitudes towards the young were subtracted from attitudes towards the elderly so that higher scores indicated more positive attitudes towards the elderly versus the young.

*Explicit attitudes towards Asians versus Whites.* Participants were asked to indicate their attitudes towards people who are Asian (Cronbach’s  $\alpha = .93$ ) on four 7-point scales, with the endpoints favourable/unfavourable, positive/negative, like/dislike, and desirable/undesirable, which were averaged. They were also asked to indicate their attitudes towards Whites on the same scales which were also averaged (Cronbach’s  $\alpha = .94$ ) (see Appendix B3, page 64). Participants’ attitudes towards Whites were subtracted from their

attitudes towards Asians, meaning that higher scores indicated more positive attitudes towards Asians versus Whites.

*Scale of Anti-Asian American Stereotypes (SAAAS).* Participants also indicated their stereotypes towards Asians on twenty-five 6-point scales ranging from 0 (*strongly disagree*) to 5 (*strongly agree*) (Lin, Kwan, Cheung, & Fiske, 2005). Example items are “Asians seem to be striving to become number one” and “Asians commit less time to socializing than others do” (Cronbach’s  $\alpha = .93$ ).

*Explicit normative regard towards Asians versus Whites.* Participants’ normative regard towards Whites (assessed with the statement “people should like White people” on a scale from 1 (*strongly disagree*) to 7 (*strongly agree*)) was subtracted from their normative regard towards Asians (assessed with the statement “people should like Asians”) so that higher scores indicated more positive normative regard towards Asians vs. Whites (see Appendix B3, page 64).

*Explicit normative regard towards elderly.* I assessed participants’ normative regard towards the elderly by asking participants to indicate their agreement with the statements “most people who are important to me think I should respect the elderly” and “most people who are important to me think I should take care of the elderly” on a scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*),  $r(102) = .59$  (see Appendix B3, page 64).

Participants’ normative regard towards the young was assessed using similar items and subtracted from normative regard towards the elderly so that higher scores indicate more positive normative regard towards the elderly versus the young.

### *Procedure*

All measures were assessed online, and participants were randomly assigned to complete the IATs in one of four fixed orders.<sup>9</sup> Each session was completed four days to one week apart. One session included implicit and explicit attitudes towards the elderly. One contained implicit and explicit attitudes towards Asians and the SAAAS. One included implicit and explicit norms towards the elderly. One included implicit and explicit normative regard towards Asians.

### *Results and Discussion*

First, I assessed the extent to which implicit attitudes and normative regard were correlated. The two elderly IATs were correlated,  $r(81) = .36, p = .001$ , as were the two Asian IATs,  $r(87) = .47, p < .001$  (see Table A2 and A3 for all correlations between measures, page 78). As in Study 1, implicit attitudes and normative regard appear to be related, but not redundant.

*Implicit and explicit attitudes towards Asians.* I predicted that Asian-Canadian participants would have more positive implicit and explicit attitudes towards Asians than would European-Canadians participants. As predicted and described in Table 2, Asian-Canadian participants had more positive implicit attitudes towards Asians than did European-

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<sup>9</sup> I assessed whether the order in which IATs were conducted had any effect on IAT scores, and whether this interacted with ethnicity. To test this, I conducted a 2 (ethnicity: European-Canadian vs. Asian-Canadian) X 4 (order) X 4 (IAT type) mixed factors ANOVA. There was a main effect of order,  $F(1, 63) = 5.31, p = .003$ , ethnicity,  $F(1, 63) = 21.73, p = .001$ , and IAT type,  $F(3, 189) = 88.20, p < .001$ , but there were no significant two or three-way interactions between order, ethnicity, or IAT type. Thus, I dropped order from the analyses.

Canadian participants,  $F(1, 105) = 52.06, p < .0001$ , which remained significant when controlling for implicit and explicit normative regard towards Asians, explicit attitudes towards Asians versus Whites, the SAAAS, and error rates on the implicit attitudes measure,  $\beta = .39, t(80) = 3.69, p = .001$ . Also as predicted and described in Table 2, Asian-Canadian participants had more positive explicit attitudes towards Asians than did European-Canadian participants,  $F(1, 112) = 24.55, p < .0001$ . Asian-Canadian and European-Canadian participants did not differ in their stereotypes towards Asians (assessed by the SAAS) ( $M(\text{Asian-Canadian}) = 3.49, SD = .59; M(\text{European-Canadian}) = 3.52, SD = .75$ ),  $F < 1$ . These results suggest that Asian-Canadians' social identity may lead them to form more positive implicit and explicit attitudes towards their group.

Table 2

*Asian-Canadians' and European-Canadians' means and standard deviations on implicit and explicit attitudes and explicit normative regard towards Asians and the elderly.*

	European-Canadians	Asian-Canadians
implicit attitudes		
towards Asians	-209.41 (133.20)	-7.45 (152.24)
towards elderly	-149.29 (152.40)	-154.77 (139.79)
explicit attitudes		
towards Asians	-0.66 (1.09)	0.28 (0.82)
towards elderly	-0.41 (0.90)	-0.63 (0.80)
explicit normative regard		
towards Asians	-.04 (.47)	.22 (.74)
towards elderly	1.03 (1.09)	1.57 (1.24)

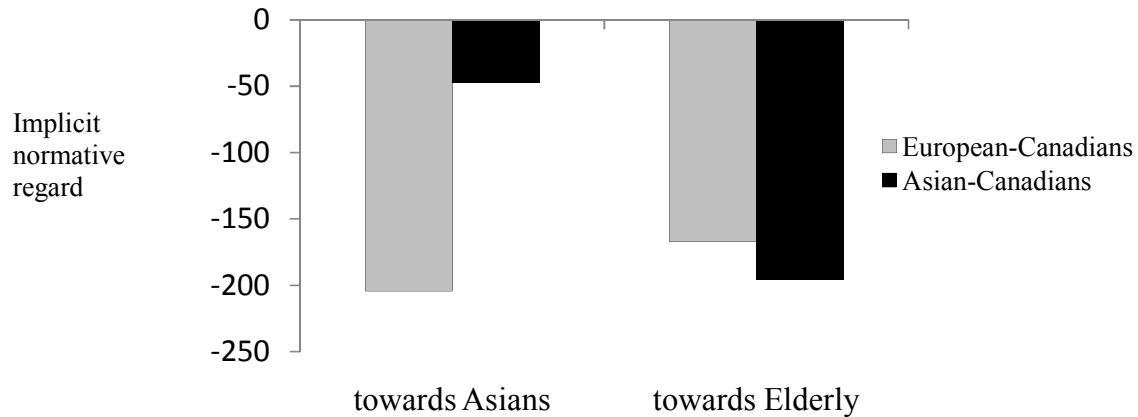


Next I tested whether the implicit and explicit attitudes of Asian-Canadian and European-Canadian participants differed significantly. Similar to Study 1, I recorded each measure to standard deviation units for each race separately and conducted a 2 (attitude: implicit vs. explicit) X 2 (ethnicity: Asian-Canadian vs. European-Canadian) mixed measures ANOVA. There was a main effect of type of attitude, such that explicit attitudes ( $M = -0.10$ ) were more positive than implicit attitudes ( $M = -0.73$ ),  $F(1, 102) = 24.55, p < .0001$ . There was a main effect of ethnicity, such that Asian-Canadians' attitudes ( $M = 0.26$ ) were more positive than those of European-Canadians ( $M = -1.09$ ),  $F(1, 102) = 3.78, p < .0001$ . These main effects, however, were qualified by a significant interaction between race and type of attitude,  $F(1, 102) = 8.84, p = .004$ . Asian-Canadians' implicit and explicit attitudes towards Asians did not differ significantly, ( $M(\text{implicit}) = .14, SD = .94; M(\text{explicit}) = .39, SD = 1.06$ ),  $F(1, 102) = 1.57, ns$ . European-Canadians had more positive explicit attitudes ( $M = -0.59$ ) than implicit ( $M = -1.59$ ),  $F(1, 102) = 41.89, p < .0001$ . Thus, just as in Study 1, members of a devalued group (in this case, Asian-Canadians) had more positive implicit and explicit attitudes towards their group than did members of the majority.

In both this study and Study 1, by transforming participants' implicit and explicit attitudes into standard deviation units we were able to compare implicit and explicit attitudes and found that European-Canadians had more positive explicit than implicit attitudes towards the target group. Other researchers have suggested that explicit attitudes may be more positive towards some social groups because of social desirability concerns (Nosek, 2005), and this may indeed be what is driving this effect in these studies as well.

*Implicit and explicit normative regard towards Asians.* I predicted that Asian-Canadian participants would protect their social identity by forming positive normative regard towards Asians at the implicit level. Because I was assessing whether people should like Asians, I predicted that the explicit normative regard of Asian-Canadians and European-Canadians might not differ. As predicted and illustrated in Figure 3, Asian-Canadian participants had more positive implicit normative regard about Asians than did European-Canadian participants ( $M(\text{Asian-Canadian}) = -47.29$ ,  $SD = 158.14$ ;  $M(\text{European-Canadian}) = -204.23$ ,  $SD = 257.85$ ),  $F(1, 102) = 11.55$ ,  $p = .001$ , which remained significant when controlling for implicit and explicit attitudes towards Asians, stereotypes towards Asians, explicit normative regard towards Asians, and error rates on the implicit normative regard measure,  $\beta = .40$ ,  $t(80) = 3.58$ ,  $p = .001$ . As described in Table 2, Asian-Canadian participants had more positive explicit normative regard towards Asians vs. Whites than did European-Canadian participants,  $F(1, 112) = 5.57$ ,  $p = .02$ . This result is not similar to the result in Study 1, but is not unexpected, because in this study I asked whether people should like Asians, which is not restricted by the reality of discrimination that Asian-Canadians may face. These results suggest that when the reality of discrimination does not constrain members of devalued groups' explicit normative regard they also demonstrate identity protection.

Figure 3. Mean scores on implicit normative regard towards Asians and the Elderly for Asian-Canadian and European-Canadian participants.



Note. Higher scores indicate a stronger association between “most people like” and “Asian” or between “most people like” and “Elderly.”

Next I tested whether the implicit and explicit normative regard of Asian-Canadian and European-Canadian participants differed significantly. Similar to Study 1, I recorded each measure to standard deviation units for each ethnicity separately and conducted a 2 (normative regard: implicit vs. explicit) X 2 (ethnicity: Asian-Canadian vs. European-Canadian) mixed measures ANOVA. There was a main effect of type of normative regard, such that explicit normative regard ( $M = 0.09$ ) was more positive than implicit normative regard ( $M = -0.55$ ),  $F(1, 101) = 21.73, p < .0001$ . There was a main effect of ethnicity, such that Asian-Canadians’ normative regard ( $M = -0.008$ ) was more positive than European-

Canadians ( $M = -0.45$ ),  $F(1, 101) = 8.03$ ,  $p = .006$ . There was no interaction between type of measure and ethnicity,  $F < 1$ .

Thus, Asian-Canadians had more positive implicit and explicit normative regard towards their group than European-Canadians, suggesting they protect their social identity by forming positive implicit normative regard towards their group at an implicit level and at an explicit level when not constrained by reality. Next I assessed whether Asian-Canadians had more positive implicit normative regard about a devalued group to which they did not belong.

*Implicit and explicit attitudes towards elderly.* As described in Table 2, Asian-Canadian and European-Canadian participants did not have significantly different implicit attitudes towards the elderly,  $F < 1$ , or explicit attitudes towards the elderly,  $F(1, 105) = 1.55$ ,  $p = .22$ . To assess whether there was a significant difference between participants' implicit and explicit attitudes I transformed scores into standard deviation units and conducted a 2 (type of attitude: implicit vs. explicit) X 2 (ethnicity: Asian-Canadian vs. European-Canadian) mixed models ANOVA. There was a main effect of measure, such that explicit attitudes ( $M = -0.61$ ) was more positive than implicit attitudes ( $M = -1.01$ ),  $F(1, 96) = 8.34$ ,  $p = .005$ . No other effects were significant. Thus, Asian-Canadians did not have more positive implicit and explicit attitudes than European-Canadians towards a devalued group to which they did not belong.

*Implicit and explicit normative regard towards elderly.* As illustrated in Figure 3, Asian-Canadian and European-Canadian participants also did not have significantly different

implicit normative regard about the elderly ( $M(\text{European-Canadian}) = -167.31$ ,  $SD = 171.89$ ;  $M(\text{Asian-Canadian}) = -195.73$ ,  $SD = 208.25$ ),  $F < 1$ . As described in Table 2, however, Asian-Canadian participants did have more positive explicit normative regard towards the elderly than did European-Canadian participants,  $F(1, 103) = 5.80$ ,  $p = .02$ .

To test whether the implicit and explicit normative regard of Asian-Canadians and European-Canadians towards the elderly differed significantly I again transformed scores into standard deviation units and conducted a 2 (type of normative regard: implicit vs. explicit) X 2 (ethnicity: Asian-Canadian vs. European-Canadian) mixed models ANOVA. There was a main effect of type of normative regard such that explicit normative regard ( $M = 1.16$ ) was more positive than implicit normative regard ( $M = -.96$ ),  $F(1, 97) = 218.24$ ,  $p < .0001$ . No other effects were significant. These results suggest that, although Asian-Canadians had more positive implicit normative regard towards members of their own group, they did not have more positive implicit normative regard than members of the majority towards all social groups, providing support for the hypothesis that positive implicit normative regard towards their group is motivated by a desire to protect their social identity.

Thus, I have replicated my implicit findings among members of three different devalued groups; African-Canadians, feminists, and Asian-Canadians. These groups had more positive implicit attitudes and implicit normative regard about their group than did members of non-devalued groups. I have suggested that this is motivated by a desire to protect their social identity, and in line with this reasoning, members of devalued groups did not have more positive implicit normative regard than members of the majority about a

devalued group to which they did not belong. These studies have provided correlational evidence supporting our claim but have not provided a direct test of this motivation. Thus, in Study 3 I assess whether an affirmation (Steele, 1998) can reduce identity protection.

### Study 3

I have suggested that members of devalued groups maintain positive implicit normative regard in order to maintain a positive social identity. If this ingroup bias is indeed meant to promote a positive social identity (which serves to maintain one's self-integrity) then if members of devalued groups are affirmed (Steele, 1988), they should no longer show ingroup bias. Indeed, past research has found that a self-affirmation can reduce ingroup bias based on university affiliation in the minimal group paradigm (Fein, Hoshino-Browne, Davies, & Spencer, 2003). In the present study I examine whether affirming a group identity can affect ingroup bias. I reason that when one's group identity is affirmed people should be less likely to show ingroup bias (i.e., positive normative regard) even at an implicit level. In other words, when the motivation to maintain a positive social identity is met through other means, the effect of this motivation on implicit normative regard should disappear.

In this study I chose to focus on implicit normative regard because, for members of devalued groups, there is no conflict between maintaining positive implicit attitudes towards one's group and facing discrimination, whereas maintaining the view that most people like one's group when that group is the target of discrimination seems much more difficult. If this reasoning is correct then maintaining positive implicit normative regard should be especially driven by motivation. If this response is indeed motivated, then when members of

devalued groups are made to feel positively about their group membership using another method, they may no longer need to maintain positive implicit normative regard.

To test this possibility, I selected members of a devalued group (i.e., Muslims) and non-Muslims, and randomly assigned them to a group-based affirmation or a control condition. I chose to affirm participants' social identity because this type of affirmation should be most effective at reducing the need for identity protection. Because I believe identity protection may be used to affirm a threat to a social identity, all participants were exposed to information suggesting Muslims are not positively regarded in society. My first hypothesis was that, when they were not affirmed, Muslims would have more positive implicit normative regard about Muslims than would non-Muslims. My second hypothesis was that, when affirmed, Muslims and non-Muslims would no longer have different implicit normative regard about Muslims.

Because maintaining the belief that one's group is discriminated against at an explicit level might help members of devalued groups to maintain a positive sense of self, I thought that affirmation might have a different effect on explicit normative regard. Indeed, based on research by Crocker and Major (1989) it is likely that members of devalued groups use the knowledge that their group is discriminated against to cope with threats to their self-concept. If this is true, I would expect that an affirmation would reduce reports of discrimination against one's group (i.e., would lead to more positive explicit normative regard for Muslim participants). I tested this prediction in this study as well, using measures of normative regard that were similar to those used in Studies 1 and 2, as well as more subtle

measures of normative regard, including the appropriateness of jokes towards Muslims, whether others had reason to be afraid of some social groups including Muslims, and whether Muslims perceived that they had been discriminated against or whether their group had been discriminated against.

### *Method*

#### *Participants*

A total of 67 participants (32 Muslim, 35 non-Muslim; 35 women, 30 men, 1 did not indicate gender;  $M(\text{age}) = 20$  years) participated in exchange for course credit or for \$8. Non-Muslim participants were born in Canada, were White, and either identified as Christian or did not identify as religious.

#### *Procedure*

Participants were brought into the lab in groups of one to three. They were randomly assigned to the group affirmation or control condition. In the group affirmation condition, participants were asked to think about a social group that was most important to them (Luhtanen & Crocker, 1992), and then to think about a value that was most important to their group. They could choose from: business/economics, relationships, art/music/theatre, science/pursuit of knowledge, or helping those in need (Fein & Spencer, 1997). Next, participants were asked to come up with three reasons why this value was important to their group, and an example of how their group has demonstrated this value (Sherman, Kinias, Major, Kim, & Prenovost, 2007) (see Appendix C2, page 68).



In the control condition, participants were not asked to think about a group that was important to them. Instead, they were asked to choose the value that was the least important to them (out of the values: business/economics, social life/relationships, art/music/theatre, science/pursuit of knowledge) and were asked to list three reasons why this value might be important to someone else, and how someone might demonstrate this value. Participants were not asked to think about a group that is important to them and then rate the value that is least important to their group because thinking about an important group membership might have been affirming (see Appendix C3, page 69).

Next, to establish the same norm for both Muslims and non-Muslims all participants watched a series of comedy clips, the last one containing a negative joke about racial profiling of Muslims (Yoshida et al., 2010). Participants were asked how funny they found each joke, including the negative joke about racial profiling of Muslims. Participants then completed the implicit normative regard measure. I assessed participants' perceived norms towards Muslims using several different measures. First, participants recalled their own experiences of discrimination and others experiences of discrimination. Next, they completed a measure of norms towards Muslims that was comparable to measures used in previous studies. Finally, participants were asked to report which social group they had thought about earlier in the study.

### *Materials*

*Implicit normative regard.* Similar to Study 1, this IAT had the category labels “most people like/most people don’t like.” In this study, however, the other category label was

“Muslim/neutral” (see Appendix C1 for items, page 67). In the IATs in previous studies, I measured participants’ associations with two groups at once (i.e., Black and White). Some researchers have suggested that measuring associations with two groups at once renders it unclear to which group the associations are made (Blanton, Jaccard, Gonzales, & Christie, 2006). To make it clear in the present study that associations are with Muslims I changed these category labels. This change in procedure makes it clear that any evidence of identity protection in this study is due to ingroup favouritism (i.e., about associations with Muslims for the Muslim participants) rather than outgroup derogation. Higher scores indicated a stronger association between “most people like” and “Muslim.”

*Explicit normative regard toward Muslims.* Six questions assessed the extent to which people in Canada or North America like, respect, and support Muslims, and the extent to which Muslims face discrimination in Canada. An example item is “most Canadians support Muslims” (see Appendix C4 for all items, page 70). Agreement with these items was assessed on a 1 (*strongly disagree*) to 7 (*strongly agree*) scale (Cronbach’s  $\alpha = .83$ ).

*Appropriateness of jokes.* Participants were asked how appropriate it is to tell jokes about 10 different social groups on a 1 (*not at all appropriate*) to 9 (*very appropriate*) scale. These groups included Americans, rednecks, Jehovah witnesses, lawyers, Muslims, Asians, Catholics, terrorists, Hispanics, and immigrants (see Appendix C5 for all items, page 71).

*Fear items.* Participants were asked to indicate their agreement with four statements such as “people have a reason to be afraid of people from the Middle East” on scales from 1 (*strongly disagree*) to 7 (*strongly agree*) (see Appendix C6, page 72).

*Perceived discrimination.* As part of the cover story, participants were asked to describe the three most important things that had happened to them in the past 24 hours.

Next, participants read the following instructions;

*Members of some groups may experience negative reactions from others simply because of their group membership. As an example, think about how students from different schools might treat each other. Students from a different school might be treated coolly, given nasty looks, called names, intimidated, and even injured because they are from another school. Please think of times when you might have been treated negatively because of your group membership. Write a brief description of the event in the boxes below. Please only write about one event per box.*

They were then given the opportunity to describe up to 6 events that had occurred to them. On the following pages they were asked more detailed questions about the events, such as who was involved, what occurred, when and where the event occurred, and why the event occurred. They were then asked to rate the severity of the event on a 1 (*not at all negative*) to 7 (*very negative*) scale. This procedure was then repeated to assess perceived group discrimination. For this task participants read the following instructions:

*Now, please think about events that made it clear that a group you are a member of can be the target of negative reactions. This time, please do not think about events that you were personally involved in, but think about events that have happened to other members of your group. Write a brief description of the event in the boxes below. Please only write about one event per box.*

Participants then answered the same questions about each event as described above.

### *Results and Discussion*

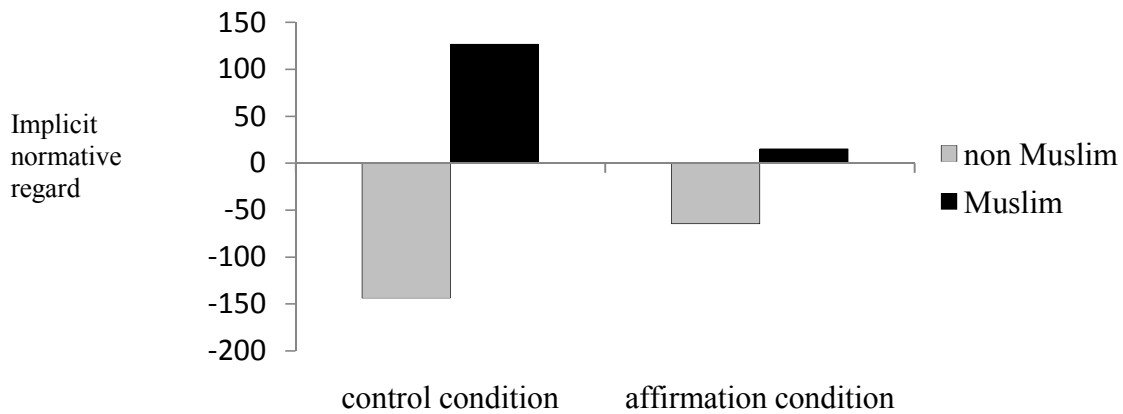
*Group selected for group affirmation.* In this study I did not direct participants to think about their religious identity because I was concerned that such instructions might alert participants to the purpose of the study. At the end of the study, however, participants were asked what social group they had thought about when asked to think about a group that was

important to them. Only 6 of the 31 Muslim participants listed Muslim as their most important group.

*Implicit normative regard.* My first prediction was that Muslim participants who were affirmed would show less positive implicit normative regard for their group. To test this hypothesis I conducted a 2 (group: Muslim vs. non-Muslim) X 2 (condition: affirmation vs. control) between-subjects ANOVA, with implicit normative regard as the dependent variable. There was a main effect of group,  $F(1,61) = 15.59, p = .0001$ , such that Muslims had more positive implicit normative regard about Muslims than did non-Muslims ( $M = 65.81, SD = 191.84; M = -106.46, SD = 172.61$  respectively). As depicted in Figure 4, this main effect was qualified by the predicted interaction,  $F(1, 61) = 4.63, p = .04$ . In the control condition, Muslim participants had more positive implicit normative regard towards Muslims ( $M = 127.01, SD = 192.47$ ) than did non-Muslim participants ( $M = -143.83, SD = 181.80$ ),  $F(1, 61) = 18.18, p = .0001$ , but when both groups were affirmed this group difference was no longer significant ( $M(\text{Muslim}) = 15.41, SD = 181.45; M(\text{non-Muslim}) = -64.41, SD = 156.61$ ),  $F(1, 61) = 1.65, ns$ .

Looking at the results in a different way, when Muslims were affirmed, they tended to have more negative implicit normative regard towards Muslims than when they were not affirmed,  $F(1, 61) = 3.01, p = .09$ . The normative regard of non-Muslim participants did not differ whether they were affirmed or not,  $F(1, 61) = 1.68, ns$ .

Figure 4. Mean scores on implicit normative regard towards Muslims for both Muslim and non-Muslim participants in the affirmation vs. control group.

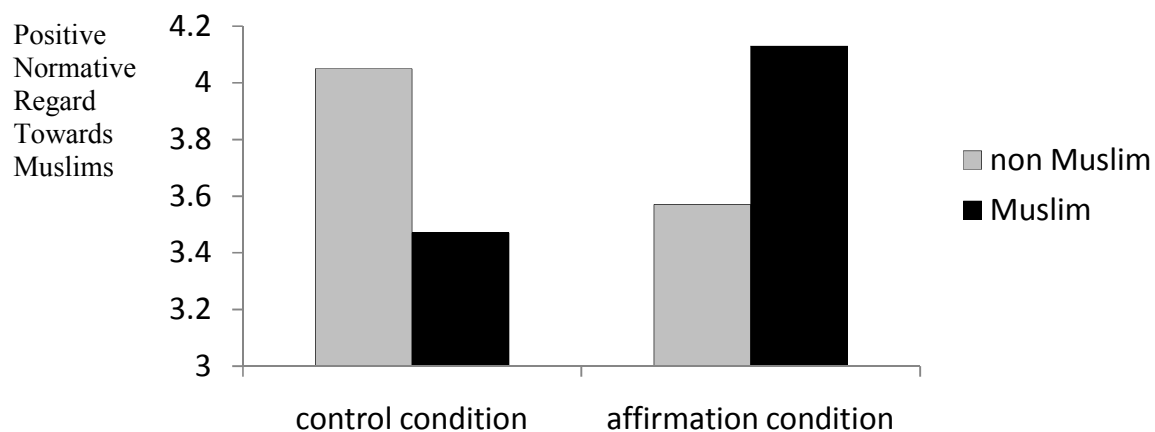


Note. Higher scores indicate a stronger association between “most people like” and “Muslim.”

*Explicit normative regard towards Muslims.* I assessed the effect that affirmation had on explicit normative regard about how Muslims are viewed in North America. I again conducted a 2 (group: Muslim vs. non-Muslim) X 2 (condition: affirmation vs. control) between-subjects ANOVA. There was a significant interaction between group and condition,  $F(1, 60) = 5.85, p = .02$ . As depicted in Figure 5, in the control condition the results showed the opposite pattern from the implicit results, such that when they were not affirmed, Muslims had marginally more negative explicit normative regard towards Muslims ( $M = 3.47, SD = 1.34$ ) than did non-Muslims ( $M = 4.05, SD = .61$ ),  $F(1, 60) = 2.89, p = .09$ . When

they were affirmed, Muslims had marginally more positive explicit normative regard towards Muslims ( $M = 4.13$ ,  $SD = 1.08$ ) than did non-Muslims ( $M = 3.57$ ,  $SD = .55$ ),  $F(1, 60) = 2.96$ ,  $p = .09$ .

*Figure 5.* Mean scores on explicit normative regard towards Muslims for both Muslim and non-Muslim participants in the affirmation vs. control group.



*Note.* Higher scores indicate more positive norms towards Muslims.

Analyzed in a different way and consistent with research by Crocker and Major (1989), when Muslim participants had not been affirmed, they tended to think that norms towards Muslims were more negative than when they had been affirmed ( $M = 3.47$ ,  $SD = 1.34$ ;  $M = 4.13$ ,  $SD = 1.08$  respectively),  $F(1, 60) = 3.67$ ,  $p = .06$ . When non-Muslim participants had not been affirmed, they thought that norms towards Muslims were more

positive than when they had been affirmed ( $M = 4.05$ ,  $SD = .61$ ;  $M = 3.57$ ,  $SD = .55$  respectively),  $F(1, 60) = 2.22$ ,  $p = .14$ , although this difference was not significant.

To assess whether the pattern of results was statistically different between implicit and explicit normative regard, I conducted a 2 (measure: implicit vs. explicit) X 2 (group: Muslim vs. not) X 2 (condition: affirmation vs. control) mixed-measures ANOVA using the standard deviation measures.<sup>10</sup> There was a main effect of group,  $F(1, 60) = 3.87$ ,  $p < .05$ , such that non-Muslim participants had more negative normative regard overall ( $M = -.45$ ) than did Muslims ( $M = .11$ ). There was a significant interaction between measure and group,  $F(1, 60) = 6.06$ ,  $p = .02$ , and a significant three-way interaction between group, measure, and condition,  $F(1, 60) = 11.82$ ,  $p = .001$ . As described above, when this 3-way interaction is analyzed separately for each measure, implicit and explicit normative regard demonstrated opposite pattern of results, in that Muslim participants had more positive implicit normative regard in the control condition but less positive implicit normative regard when affirmed (and non-Muslim participants demonstrated the opposite pattern of results), whereas on explicit normative regard, Muslim participants had more negative normative regard in the control condition than the affirmation condition (and non-Muslim participants again demonstrated the opposite pattern of results) (see table A4 for correlations between measures, page 79).

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<sup>10</sup> Because I did not have a measure of explicit normative regard towards non-Muslims in this study, this measure was not a difference score, and therefore did not have a midpoint of zero. To compensate for this, I subtracted 4 from the composite variable so that the theoretical midpoint of the scale moved from 4 (the middle of the scale) to zero.

One might argue that when devalued group members have greater implicit normative regard about their groups than majority group members, as in Study 1 and 2, that this difference is caused by what is brought to mind when the respective groups think about “most people.” That is, when members of the devalued group think about most people they think about members of the devalued group and when members of the majority group think about most people they think about members of the majority group. In Study 1 and 2 I attempted to reduce the plausibility of this interpretation by instructing participants to think about “most people in North America.” In this study, in addition, the group affirmation reduced implicit normative regard among members of the devalued group, and it seems implausible that such an affirmation causes members of the devalued group to be more likely to think of “most people” as majority group members, suggesting that differential interpretation of “most people” in the implicit normative regard measure is unlikely to be a viable interpretation of the results.

*Non-significant findings.* I again conducted a 2 (group: Muslim vs. not) X 2 (condition: affirmation vs. control) between-subjects ANOVA for the rest of the measures collected. Neither group, condition, nor their interaction predicted participants’ reports of how appropriate it is to tell jokes about Muslims, terrorists, or immigrants. When predicting fear of Muslims, there was a main effect of condition, such that participants in the affirmation condition reported more fear ( $M = 2.65, SD = 1.70$ ) than did participants in the control condition ( $M = 1.84, SD = 1.09$ ),  $F(1, 60) = 4.87, p = .03$ . There was no main effect of group or significant interaction. Thus, although affirmation differentially impacted



Muslims and non-Muslims explicit normative regard towards Muslims (such that Muslim participants believed norms towards their group were more negative after an affirmation) the measures described above did not demonstrate the same pattern of results. These measures, however, did not tap into whether Muslims are discriminated against, but rather whether this discrimination is appropriate and can be rationalized. It is therefore not surprising then that an affirmation did not increase Muslim participants' endorsement of these items.

*Open-ended data.* I assessed whether, after being affirmed, Muslim participants reported that both they as individuals and their group are more discriminated against than when they were not affirmed. Specifically, I assessed whether group or condition had any effect on the total number of reported incidents of discrimination aimed towards the self or towards the participants' group. I conducted a 2 (type of discrimination: own vs. group) X 2 (group: Muslim vs. not) X 2 (condition: affirmation vs. control) ANOVA. There was a main effect of type of discrimination, such that in general participants reported more self-directed incidents of discrimination than group-directed discrimination,  $F(1, 61) = 11.76, p = .001$ . There was also a significant interaction between type of discrimination and group membership,  $F(1, 61) = 4.02, p = .05$ , such that Muslim participants reported more self-directed discrimination ( $M = 2.90, SD = 1.90$ ) than group-directed discrimination ( $M = 2.55, SD = 1.69$ ), as did non-Muslim participants ( $M(\text{self}) = 3.12, SD = 1.47; M(\text{group}) = 1.95, SD = 1.20$  respectively). Affirmation did not impact the reported number of incidents of self-directed or group-directed discrimination, however.

These results are inconsistent with past research which has found that individuals report more group-directed than self-directed discrimination. I believe this discrepancy may be due to the way in which I asked about experiences of discrimination. In previous research participants were asked whether they had been discriminated against because of their group identity, or whether members of their group in general are discriminated against because of their group identity (Poore et al., 2002; Postmes, Branscombe, Spears, & Young, 1999; Taylor, Wright, Moghaddam, & Lalonde, 1990). In this study, however, I did not directly ask about discrimination per se. Rather, I asked whether participants had been treated negatively based on their group membership, or whether members of their group had been treated negatively based on their group membership. It is possible that, by not using the term “discrimination” I changed the nature of the events participants recalled, perhaps by reducing their threshold for reporting an event. Future research may address whether this difference in instructions does indeed reduce and even reverse the personal-group discrimination discrepancy.

In Studies 1-3 I have seen evidence supporting the notion that, when assessed implicitly, members of devalued groups (i.e., African-Canadians, feminists, Asian-Canadians, and Muslims) believe most people like their group, and that, when their motivation to maintain a positive social identity is met through an affirmation, members of devalued groups no longer have greater positive implicit normative regard about their group than do members of the majority. Thus, I have suggested that this initial difference in implicit normative regard is due to a motivation to protect their social identity. Up to this

point, however, I have not presented convincing evidence that implicit normative regard and implicit attitudes are different constructs that can differentially predict behaviour. The purpose of Study 4 was to provide such evidence by examining whether implicit normative regard and implicit attitudes differentially predict collective action.

#### Study 4

Social identity theory (Tajfel & Turner, 1979) argues that members of devalued groups can engage in collective action as one way to alter their group status and subsequently protect their group identity. The motive to protect one's group identity in this way would seem to be strongest, however, when members of devalued groups have negative normative regard (i.e., at some level feel that their group is not valued). This reasoning suggests that those who have the most negative normative regard will be the most likely to engage in collective action. Indeed, past research suggests that perceiving that ones' group is discriminated against predicts collective action (e.g., Ellemers & Barreto, 2009; Louis & Taylor, 1999).

In contrast, social identity theory would also seem to predict that those who have the most positive attitudes about their group would be the ones most likely to engage in collective action to bolster their group's status and circumstances. Thus, social identity theory would predict that positive normative regard would be negatively related to collective action, whereas positive group attitudes would be positively related to collective action.

In the present study I was most interested in examining whether normative regard, and particularly implicit normative regard, could affect collective action. Because normative

regard focuses on what others' think of one's group, I created a situation in which group concerns were highlighted. I did this by having participants complete a task previously shown to increase collective identity (Brewer & Gardner, 1996), having participants take part in groups, and by giving the impression that any collection action engaged in would be made public. In addition, to increase the likelihood that implicit constructs would predict collective action I created a situation in which the connection between collective action and the group in question was subtle instead of overt. In past research such subtle assessment of behaviour has allowed greater latitude for the influence of implicit processes (Gaertner & Dovidio, 1986; Son Hing, Li, & Zanna, 2002). Therefore in the present study I expected implicit normative regard to be a potent predictor of collective action, even though I would argue that in other situations (such as when individuals were focused on their personal instead of group identity, or when the connection between collective action and the group in question was overt) implicit and explicit attitudes, and explicit normative regard could be potent predictors of collective action.

I chose feminists as the devalued group to study because feminists tend to be viewed negatively by others (Haddock & Zanna, 1994). I assessed women's identification with feminism and over-selected women who highly identified with feminism for this study in order to assess whether feminism was related to the dependent variable. Attitudes and normative regard (both implicitly and explicitly) were assessed online, and then participants were randomly assigned to volunteer for a cause, framed as advancing the interests of feminists or students. I then assessed their intention to volunteer for this cause. I expected

that positive implicit normative regard would predict less volunteering behaviour among feminists when asked to volunteer for a relevant cause (i.e., a cause that benefits feminists) but not for an unrelated cause (i.e., a cause that benefits students). I expected that those feminists who had protected their social identity by forming positive implicit normative regard would be less likely to engage in collective action. Thus, I expected that only women who identified with feminism, who had relatively negative implicit normative regard about feminists, and who were asked to volunteer for a feminist cause would show greater collective action.

### *Method*

#### *Participants*

Forty-nine female participants<sup>11</sup> (age range from 18-57,  $M = 20.04$ ) from the introductory psychology participant pool participated in this study in exchange for course credit.

#### *Materials*

*Identification with feminism.* At the beginning of the semester, participants completed a measure of identification with feminism (Reid & Percell, 2004). These questions were “I am a feminist,” “I am strongly identified with being a feminist,” and “being a feminist is central to who I am.” Participants were also asked how favourable their attitude was towards feminists, and combined this item with the other three (Cronbach’s  $\alpha = .89$ ).

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<sup>11</sup> In total 65 participants completed the pretest measures but did not participate in the lab, and these participants’ data is included in correlations between pretest measures.

*Activism Orientation Scale (Corning & Myers, 2002).* At the beginning of the semester, participants responded to 28 questions ranging from 0 (*extremely unlikely*) to 3 (*extremely likely*) assessing the likelihood that they would engage in various politically-oriented activist behaviours in the future. An example item is “display a poster or bumper sticker with a political message?” (Cronbach’s  $\alpha = .96$ ).

*Implicit attitudes and normative regard.* Participants completed two IATs before coming into the lab; a measure of implicit attitudes (with the category labels “I like/I don’t like”), and a measure of implicit normative regard (with the category labels most “people like/most people don’t like”). The second category was “feminist/housewife.” Example items are “activist” and “liberated” for the feminist category, and “domestic” and “traditional” for the housewife category (see Appendix D1, page 73).

*Explicit normative regard.* I assessed explicit normative regard using a modified evaluative thermometer. Participants were asked to ignore their own attitudes towards feminists and filler groups (union members, gay men and lesbians, African Canadians, and English Canadians) and instead asked to report how most undergraduates at their university would rate the groups on a scale from 0 (*extremely unfavourable*) to 100 (*extremely favourable*).

*Intention to volunteer.* I measured participants’ intention to engage in several volunteer behaviours (sign a petition, wear a button, join the group, go to a rally on campus, distribute flyers on campus, organize the flyer distribution and/or rally, protest outside the National Parliament building, and stand for election to the executive of the group), each one requiring

more effort. A separate group of participants rated how much effort each behaviour required (Bass, Cascio, & O'Connor, 1974). Each behaviour chosen was then multiplied by these effort ratings and summed (see Appendix D2, page 74).

### *Procedure*

Participants completed the identification with feminism and the activism orientation scales at the beginning of the term in a mass-testing session. They then completed the two IATs (implicit attitudes and implicit normative regard) in two counter-balanced sessions. The measure of explicit normative regard came after the measure of implicit normative regard. The online sessions were spaced four days to one week apart.

Participants arrived to the lab in groups of three to six, ostensibly to engage in group work. They were randomly assigned to either the feminist condition or the control condition. In the feminist condition participants were met by a female experimenter wearing a button that had "Feminists for Child Care" and a pink female symbol on it. In the lab these same buttons were present, as were pamphlets with the symbol on them. In the control condition, the button had "Waterloo Students for Child Care" and cartoon children on it. Participants were told that they would be completing a short experiment and, because the study was short, the experimenter was allowed to recruit them to participate in various activities for a group to which she belonged on campus. Participants were asked to indicate an interest in participating in the group only if they were committed to doing so, because volunteering and then backing down would be problematic for the researcher, allowing us to assess committed behavioural intentions.

In order to increase participants' collective identity and sense of interdependence, participants then completed the supposed experiment by reading a paragraph and circling the number of times that the word "we" was used (Brewer & Gardner, 1996). Then, participants completed the dependent variable of interest, in which participants were given the choice to indicate whether they intended to volunteer for Feminists for Child Care in the feminist condition or Waterloo students for Child Care in the control condition.

After completing this questionnaire, participants were given a funnel debriefing in which they were probed for suspicion and the nature of the experiment was fully explained.

### *Results and Discussion*

I replicated previous group differences in implicit attitudes and implicit normative regard. Identification with feminism correlated with implicit attitudes about feminists,  $r(63) = .29$ ,  $p = .02$ , and with implicit normative regard about feminists,  $r(63) = .23$ ,  $p = .06$ , although the latter correlation was marginal (see Table A5 for all correlations between measures, page 79).

I regressed intentions to volunteer on implicit normative regard, condition, and participants' identification with feminism, their two-way interactions, and the three-way interaction.<sup>12</sup> There were no significant main effects. There was, however, a significant interaction between identification with feminism and condition,  $\beta = .60$ ,  $t(41) = 2.48$ ,  $p = .02$ , such that identification with feminism predicted intentions to volunteer in the feminist condition, but not in the control condition. This two-way interaction was qualified by the

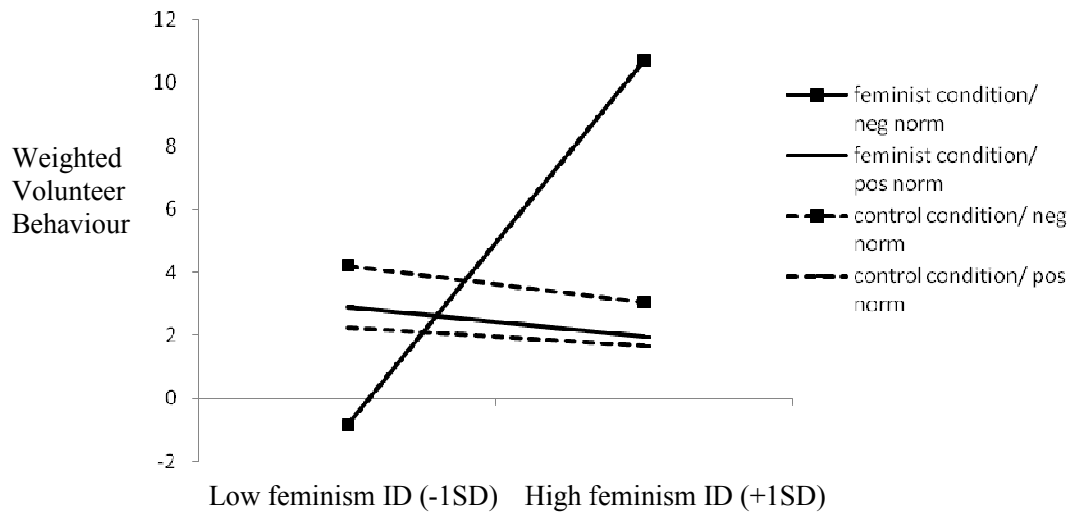
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<sup>12</sup> Three participants were excluded from these analyses because their implicit normative regard scores were more than three standard deviations from the mean.



predicted three-way interaction,  $\beta = .59$ ,  $t(41) = 2.52$ ,  $p = .02$ , as illustrated in Figure 6. In the control condition, neither implicit normative regard,  $t(41) = 1.00$ , *ns*, feminism, nor their interaction predicted intentions to volunteer,  $t_s < 1$ . In the feminist condition, identification with feminism predicted intentions to volunteer,  $\beta = .57$ ,  $t(41) = 2.77$ ,  $p = .008$ , as did the interaction between identification with feminism and implicit normative regard,  $\beta = .62$ ,  $t(41) = 3.40$ ,  $p < .001$ , such that more positive implicit normative regard predicted lower intentions to volunteer for women who identified with feminism,  $\beta = .57$ ,  $t(41) = 5.67$ ,  $p < .0001$ , but did not predict for women who did not identify with feminism,  $\beta = -.15$ ,  $t < 1$ . This three-way interaction was still significant when controlling for implicit attitudes, explicit normative regard, and the activism orientation scale,  $\beta = .59$ ,  $t(39) = 2.46$ ,  $p = .02$ . Thus, the more women who identified with feminism had positive implicit normative regard about feminists, the less they intended to volunteer for a feminist cause. Ironically then, members of devalued groups who protect their social identity by forming positive implicit normative regard may be the least likely members of their group to attempt to improve the status of their group.

Figure 6. Three-way interaction between condition, feminism, and implicit normative regard, predicting weighted number of volunteer behaviours.



Note. “Feminist condition/ neg normative regard” refers to participants randomly assigned to the feminist condition with negative implicit normative regard towards feminists. Normative regard is plotted at one standard deviation above and below the mean.

Recall that I predicted that implicit normative regard would predict collective action, but that in this study implicit attitudes and explicit normative regard would not. Was this indeed the case? The results supported these predictions. Implicit attitudes, explicit normative regard, and the activism orientation scale, were not related to intentions to volunteer in either condition, and did not interact with condition or participants’ level of

feminism to predict intentions to volunteer, all  $t$ s < 1, ( $\beta = .19$ ,  $t(41) = 1.20$ , *ns* for the interaction between explicit normative regard and identification with feminism). In this study participants' collective identity was primed and they participated in groups in order to create a situation in which implicit normative regard, but not implicit attitudes, would predict behaviour, and the results indicate that this attempt was successful.

In addition, in this study, as in Studies 1 and 2, implicit attitudes and implicit normative regard were moderately correlated,  $r(63) = .27$ ,  $p = .03$ , suggesting that although implicit attitudes and implicit normative regard are related, they are not redundant. As predicted, feminists' willingness to engage in collective action was related to their implicit normative regard towards their group but not their implicit attitude towards feminists, supporting my assertion that these two measures are distinct. Thus, I have found evidence that, in some situations at least, implicit normative regard can predict a behavioural intention that implicit attitudes cannot.

Past research has found that explicit normative regard predicts collective action (Louis & Taylor, 1999), but this was not the case in this study. In other situations I might have predicted that implicit and explicit attitudes and explicit normative regard would have predicted behaviour, but in this study I purposely created a situation that would allow implicit normative regard to predict behaviour. I did so by priming participants' collective identity and by running participants in groups. By focusing women on the issue of child care and not feminism per se, I created a relatively subtle assessment of collective action, giving implicit normative regard a better chance of predicting the dependent variable than explicit

normative regard. It is also possible that explicit normative regard did not predict behaviour because it was assessed using only one item. A more thorough assessment of whether feminists believed most people liked feminists might have been related to their propensity to engage in collective action to benefit their group.

All participants in this study were women and thus might conceivably engage in collective action, but only women who identified with feminism did. Why do not all women engage in collective action? One possible answer is that when people rate women in general, they rate them quite positively (Eagly & Mladinic, 1989), and thus not all women may need to engage in identity protection. Some groups of women (such as feminists, Haddock & Zanna, 1994), however, or women in some domains (such as traditionally masculine domains like engineering) are evaluated negatively and discriminated against, and I believe it is these groups of women who are more likely to attempt to protect their social identity. The finding that women who were more identified with feminism were more likely to engage in collective action supports this conclusion, but future research will be needed to examine whether some sub-groups of devalued groups are more likely to attempt to protect their social identity than others.

More generally I also theorize that discrimination will only make identity protection at the explicit level more difficult for the sub-group that is discriminated against. For example, discrimination against feminists may have little effect on women's ability to believe that women in general are liked, but would make it quite difficult for feminists to believe that feminists are well liked.

### Chapter 3: General Discussion

Throughout this paper, I have provided evidence that members of devalued groups (e.g., African-Canadians, feminists, Asian-Canadians, and Muslims) have more positive implicit normative regard about their group than do members of the majority, and do not have more positive implicit normative regard about a devalued group to which they do not belong. I have argued that this positive normative regard arises from a motivation to protect one's social identity and found support for this argument in Study 3, which demonstrated that when this motive is met through other means (in this case, an affirmation), this group difference in normative regard was no longer evident. Study 4 demonstrated that this new measure of implicit normative regard can also predict behavioural intentions (i.e., collective action), over and above participants' explicit beliefs of what the majority thinks of their group, their implicit attitudes towards their group, and even their general tendencies towards activism, all of which did not predict behavioural intentions in this situation. When feminists' motivation to maintain a positive social identity was met through positive implicit normative regard towards their group, they were less likely to engage in collective action to maintain that identity.

Through what mechanisms do members of devalued groups' motivation to maintain a positive social identity lead to more positive implicit normative regard? I postulate that there are at least three possible mechanisms through which this effect may occur. First, the motive to maintain a positive social identity may shape members of social groups' construal of the way their group is depicted and treated in society. Past research has shown that motivation

can have a strong effect on construal and even construal about which people are unaware. For example, Spencer, Fein, Wolfe, Fong, and Dunn (1998) found that, when individuals are motivated to self-enhance, they automatically associated negative stereotypes with Black faces (presumably to bolster their threatened self-esteem).

Second, this motive to maintain a positive social identity may shape the inferences members of devalued groups draw from societal depictions of their group. Past research suggests that such motivated inferences are common. For example, Fein and Spencer (1997) found that, when individuals were motivated to self-enhance, they were more likely to infer that a member of a stereotyped group was not qualified for a job than when they were not motivated to self-enhance. Thus, when members of devalued groups are motivated to protect their social identity, they may be exposed to the same societal depictions of their group as members of the majority, but they may implicitly infer that most people like their group.

Third, this motive to maintain a positive social identity may shape the people and groups about which people associate and think. Past research has demonstrated that motives can influence about whom people think and with whom they associate. For example, Fitzsimons and Fishbach (2010) have demonstrated that when pursuing a goal people are most likely to implicitly think about people who will help them achieve their goal and may well be more likely to associate with such people. Similarly, when people are motivated to maintain a positive social identity they may be more likely to implicitly think about people who view their group positively and seek out contact with such people. Such selective focus and exposure to such people could then in turn affect their implicit associations of what most

people like and their group.

In this dissertation members of devalued groups' implicit normative regard towards their group became more negative when their motivation to protect their social identity had been met through an affirmation. Although this affirmation did not change the societal depictions to which these individuals had been exposed, by temporarily satiating their motivation to form a positive social identity the associations of these individuals may have been changed. Specifically, members of devalued groups may have recalled less information suggesting that others like their group, they may no longer have inferred that most people like their group based on past societal depictions to which they had been exposed, and they may no longer have activated thoughts of others who evaluate their group positively. Thus, although Study 3 suggests that individuals' implicit normative regard can change when their motivation changes, it does not rule out the proposed mechanisms above.

I have argued that implicit and explicit measures of normative regard differentially reflect the experiences of devalued groups. Supporting this assertion, I found that African-Canadians and Muslims report that most people do not like their group on explicit measures, but on implicit measures, members of both groups believed that most people actually do like their group (as compared to members of non-devalued groups). Further supporting the notion that implicit and explicit measures of normative regard assess different constructs, the results indicate that, when affirmed, implicit and explicit normative regard demonstrated opposite patterns of results. When affirmed, Muslims implicitly believed that most people like their group less, but they explicitly believed that most people like their group more, than

when Muslims were not affirmed. I argue that explicit measures are affected by the reality of inequality that members of devalued groups face whereas implicit measures are not, and these differing patterns of results support this claim. Although Asian-Canadians did not have more negative explicit than implicit normative regard towards their group, I believe this is due to assessing whether people should like their group at the explicit level, which is not impacted by the reality constraints that impede the explicit belief that most people like one's group.

The findings not only suggest that explicit normative regard is distinct from implicit normative regard, but that implicit attitudes are distinct from implicit normative regard. First, I found that members of devalued groups demonstrated the same pattern of results on both implicit and explicit measures of attitudes, whereas they had different patterns on implicit and explicit normative regard. Second, I found that implicit normative regard predicted behavioural intentions over and above measures of implicit attitudes, which in this research did not predict intentions to engage in collective action.

In other research (Yoshida et al., 2010) my co-authors and I have found other results that further discriminate between these two measures. First, we have found that implicit personalized attitudes (Olson & Fazio, 2004) and implicit normative regard independently predict scores on a more traditional IAT. Second, implicit normative regard about food consumption was able to predict eating behaviour over and above implicit attitudes. Third, we have found that the amount of time Asians have spent in North America influenced their implicit normative regard but not their implicit attitudes towards the elderly. Fourth, implicit



normative regard was able to predict whether female engineers intended to drop out of engineering, over and above their implicit attitudes. Fifth, hearing an audience laugh at a racist joke about people from the Middle East (vs. hearing the same joke with no laughter) made implicit normative regard towards people from the Middle East more negative but did not influence implicit attitudes, and this implicit normative regard (but not implicit attitudes) predicted cutting funds for a Muslim organization on campus. In other research we have found that the same situation that elicits stereotype threat influenced implicit normative regard but not implicit attitudes, and that implicit normative regard predicted response time on the shooter bias task (Correll, Park, Judd, & Wittenbrink, 2002) whereas implicit attitudes, explicit attitudes, and explicit normative regard did not (Spencer et al., 2010). Together with findings from this paper, these differential patterns of results suggest that these measures are not the same, and that implicit normative regard can add to our understanding of the experiences of members of devalued groups.

I began by asking how members of groups that experience discrimination could possibly reconcile their desire to be a member of a group that is liked with evidence that their group is in reality not liked. Throughout this dissertation, I have suggested that, by believing that their group is liked by others at a spontaneous level, members of devalued groups can meet this need without directly confronting reality. Unfortunately, if members of devalued groups do not have to confront reality, then they do not have to attempt to change the reality that their group faces. Thus, it seems that positive effects at the individual level may have more insidious consequences at the group level.

## Appendix A: Study 1 materials

### A1: IAT Words and Faces in Study 1.

Unpleasant words	Pleasant words
abuse	friend
agony	gift
death	happy
disaster	holiday
disease	joy
evil	love
garbage	party
pain	smile
stink	sunshine
vomit	warmth

Participants categorized the same words to the category labels “I like/I don’t like” and “most people like/most people don’t like.”

#### Black/White faces



A2: Semantic differentials in Study 1.

For each word below, please select the phrase that best describes your overall evaluation of that word:

Flowers

1	2	3	4	5	6	7
I dislike extremely	I dislike moderately	I dislike somewhat	I neither dislike nor dislike	I like somewhat	I like moderately	I like extremely

Insects

1	2	3	4	5	6	7
I dislike extremely	I dislike moderately	I dislike somewhat	I neither dislike nor dislike	I like somewhat	I like moderately	I like extremely

Apples

1	2	3	4	5	6	7
I dislike extremely	I dislike moderately	I dislike somewhat	I neither dislike nor dislike	I like somewhat	I like moderately	I like extremely

Candy Bars

1	2	3	4	5	6	7
I dislike extremely	I dislike moderately	I dislike somewhat	I neither dislike nor dislike	I like somewhat	I like moderately	I like extremely

Blacks

1	2	3	4	5	6	7
I dislike extremely	I dislike moderately	I dislike somewhat	I neither dislike nor dislike	I like somewhat	I like moderately	I like extremely

Whites

1	2	3	4	5	6	7
I dislike extremely	I dislike moderately	I dislike somewhat	I neither dislike nor dislike	I like somewhat	I like moderately	I like extremely

For each word below, please select the phrase that best describes your overall evaluation of that word:

The words "most people like" refers to what people in North America (i.e. U.S. and Canada) actually like, not what they should like.

Flowers

1	2	3	4	5	6	7
most	most	most	most	most	most	most
people	people	people	people	people	people like	people
dislike	dislike	dislike	neither	like	moderately	like
extremely	moderately	somewhat	dislike	somewhat		extremely
			nor			
			dislike			

Insects

1	2	3	4	5	6	7
most	most	most	most	most	most	most
people	people	people	people	people	people like	people
dislike	dislike	dislike	neither	like	moderately	like
extremely	moderately	somewhat	dislike	somewhat		extremely
			nor			
			dislike			

Apples

1	2	3	4	5	6	7
most	most	most	most	most	most	most
people	people	people	people	people	people like	people
dislike	dislike	dislike	neither	like	moderately	like
extremely	moderately	somewhat	dislike	somewhat		extremely
			nor			
			dislike			

Candy Bars

1	2	3	4	5	6	7
most	most	most	most	most	most	most
people	people	people	people	people	people like	people
dislike	dislike	dislike	neither	like	moderately	like
extremely	moderately	somewhat	dislike	somewhat		extremely
			nor			
			dislike			

Blacks							
1	2	3	4	5	6	7	
most people dislike extremely	most people dislike moderately	most people dislike somewhat	most people neither dislike nor dislike	most people like somewhat	most people like moderately	most people like extremely	

Whites							
1	2	3	4	5	6	7	
most people dislike extremely	most people dislike moderately	most people dislike somewhat	most people neither dislike nor dislike	most people like somewhat	most people like moderately	most people like extremely	

## Appendix B: Study 2 materials

### B1: IAT words in Study 2.

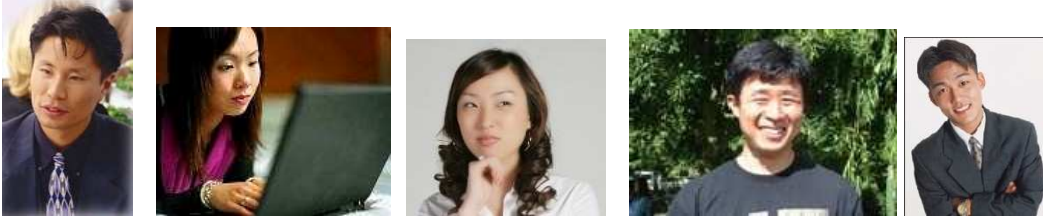
I don't like words	I like words
abuse	friend
agony	gift
death	happy
disaster	holiday
disease	joy
evil	love
garbage	party
pain	smile
stink	sunshine
vomit	warmth

Words categorized to “people should like/people shouldn't like.” Participants categorized each word twice.

People shouldn't like	People should like
abuse	gift
disaster	holiday
evil	joy
garbage	love
pain	smile

B2: IAT faces in Study 2.

Asian faces



White faces



Elderly Faces



Young Faces



B3: Semantic Differentials in Study 2

**Additional Questionnaire I**

1. Please indicate your overall opinion or evaluations of **the elderly**.

1	2	3	4	5	6	7
extremely unfavourable	moderately unfavourable	slightly unfavourable	neither favourable or unfavourable	slightly favourable	moderately favourable	extremely favourable

2. Please indicate your overall opinion or evaluations of **the elderly**.

1	2	3	4	5	6	7
extremely negative	moderately negative	slightly negative	neither positive or negative	slightly positive	moderately positive	extremely positive

3. Please indicate your overall opinion or evaluations of **the elderly**.

1	2	3	4	5	6	7
extremely dislike	moderately dislike	slightly dislike	neither like or dislike	slightly like	moderately like	extremely like

4. Please indicate your overall opinion or evaluations of **the elderly**.

1	2	3	4	5	6	7
extremely undesirable	moderately undesirable	slightly undesirable	neither desirable or undesirable	slightly desirable	moderately desirable	extremely desirable

**Additional Questionnaire II**

1. Please indicate your overall opinion or evaluations of **young people**.

1	2	3	4	5	6	7
extremely unfavourable	moderately unfavourable	slightly unfavourable	neither favourable or unfavourable	slightly favourable	moderately favourable	extremely favourable

2. Please indicate your overall opinion or evaluations of **young people**.

1	2	3	4	5	6	7
extremely negative	moderately negative	slightly negative	neither positive or negative	slightly positive	moderately positive	extremely positive

3. Please indicate your overall opinion or evaluations of **young people**.

1	2	3	4	5	6	7
extremely dislike	moderately dislike	slightly dislike	neither like or dislike	slightly like	moderately like	extremely like

4. Please indicate your overall opinion or evaluations of **young people**.

1	2	3	4	5	6	7
extremely undesirable	moderately undesirable	slightly undesirable	neither desirable or undesirable	slightly desirable	moderately desirable	extremely desirable



### Additional Questionnaire III

1. Please indicate your overall opinion or evaluations of **people who are Asian.**

1	2	3	4	5	6	7
extremely unfavourable	moderately unfavourable	slightly unfavourable	neither favourable or unfavourable	slightly favourable	moderately favourable	extremely favourable

2. Please indicate your overall opinion or evaluations of **people who are Asian.**

1	2	3	4	5	6	7
extremely negative	moderately negative	slightly negative	neither positive or negative	slightly positive	moderately positive	extremely positive

3. Please indicate your overall opinion or evaluations of **people who are Asian.**

1	2	3	4	5	6	7
extremely dislike	moderately dislike	slightly dislike	neither like or dislike	slightly like	moderately like	extremely like

4. Please indicate your overall opinion or evaluations of **people who are Asian.**

1	2	3	4	5	6	7
extremely undesirable	moderately undesirable	slightly undesirable	neither desirable or undesirable	slightly desirable	moderately desirable	extremely desirable

### Additional Questionnaire IV

1. Please indicate your overall opinion or evaluations of **people who are White.**

1	2	3	4	5	6	7
extremely unfavourable	moderately unfavourable	slightly unfavourable	neither favourable or unfavourable	slightly favourable	moderately favourable	extremely favourable

2. Please indicate your overall opinion or evaluations of **people who are White.**

1	2	3	4	5	6	7
extremely negative	moderately negative	slightly negative	neither positive or negative	slightly positive	moderately positive	extremely positive

3. Please indicate your overall opinion or evaluations of **people who are White.**

1	2	3	4	5	6	7
extremely dislike	moderately dislike	slightly dislike	neither like or dislike	slightly like	moderately like	extremely like

4. Please indicate your overall opinion or evaluations of **people who are White.**

1	2	3	4	5	6	7
extremely undesirable	moderately undesirable	slightly undesirable	neither desirable or undesirable	slightly desirable	moderately desirable	extremely desirable

### Additional Questionnaire V

Please indicate your agreement or disagreement to the following statements.

1. Most people who are important to me think I should respect **the elderly**.

1	2	3	4	5	6	7
Strongly Disagree	Moderately Disagree	Slightly Disagree	Neither Disagree or Agree	Slightly Agree	Moderately Agree	Strongly Agree

2. Most people who are important to me think I should take care of **the elderly**.

1	2	3	4	5	6	7
Strongly Disagree	Moderately Disagree	Slightly Disagree	Neither Disagree or Agree	Slightly Agree	Moderately Agree	Strongly Agree

### Additional Questionnaire VI

Please indicate your agreement or disagreement to the following statements.

1. Most people who are important to me think I should respect **young people**.

1	2	3	4	5	6	7
Strongly Disagree	Moderately Disagree	Slightly Disagree	Neither Disagree or Agree	Slightly Agree	Moderately Agree	Strongly Agree

2. Most people who are important to me think I should take care of **young people**.

1	2	3	4	5	6	7
Strongly Disagree	Moderately Disagree	Slightly Disagree	Neither Disagree or Agree	Slightly Agree	Moderately Agree	Strongly Agree

### Additional Questionnaire VII

Please indicate the extent to which you agree with the following statements:

1. People should like Asians.

1	2	3	4	5	6	7
Strongly Disagree	Moderately Disagree	Slightly Disagree	Neither Disagree or Agree	Slightly Agree	Moderately Agree	Strongly Agree

2. People should like White people.

1	2	3	4	5	6	7
Strongly Disagree	Moderately Disagree	Slightly Disagree	Neither Disagree or Agree	Slightly Agree	Moderately Agree	Strongly Agree

## Appendix C: Study 3 materials

C1: IAT images.

Participants categorized the same words used in Study 1.

Muslim Faces



Neutral pictures



C2: Group Affirmation.

We are all members of different social groups or social categories. Some of such social groups or categories pertain to gender, race, religion, nationality, ethnicity, and socioeconomic class. We would like you to consider your memberships in those particular groups or categories, and **think about the group that is most important to you**. Then, please **think about the value that is most important to your group**, and circle it below.

Below is a list of values.

Please circle the value that is *most* important to your group:

business / economics	relationships
art / music / theatre	science / pursuit of knowledge
Helping those in need	

Please write three reasons this value is important to your group and one example of something your group has done to demonstrate how important it is to your group. Thank you.

Reasons

1. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
2. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
3. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Example

1. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

C3: Control Condition.

Below is a list of values.

Please circle the value that is *least* important to you, personally:

business / economics	social life / relationships
art / music / theatre	science / pursuit of knowledge

Please write three reasons this value might be important to someone else and one example of something someone else might do to demonstrate how important it is to them.

Do **not** write about why this is *not* important to *you*, please write about how other people would find this an important value.

Thank you.

Reasons

1. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
2. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
3. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Example

1. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

C4: Explicit Normative Regard Items.

We are interested in undergraduate student's perceptions of what most Canadians think of different groups. Please indicate the extent to which you agree with the following items below. Please use the whole range of the scale.

Most people in Canada like Muslims

1	2	3	4	5	6	7
strongly disagree			Neither agree or disagree			strongly agree

Most people in North America like Muslims

1	2	3	4	5	6	7
strongly disagree			neither agree or disagree			strongly agree

People tend to respect Muslims

1	2	3	4	5	6	7
strongly disagree			neither agree or disagree			strongly agree

People in Canada do not discriminate against Muslims.

1	2	3	4	5	6	7
strongly disagree			neither agree or disagree			strongly agree

Canadians have been very supportive of Muslims during the recent political upheaval.

1	2	3	4	5	6	7
strongly disagree			neither agree or disagree			strongly agree

Most Canadians support Muslims.

1	2	3	4	5	6	7
strongly disagree			Neither agree or disagree			strongly agree

C5: Fear Items.

People have reason to be scared of Muslims

1	2	3	4	5	6	7
strongly disagree			neither agree or disagree			strongly agree

People have reason to be afraid of people from the Middle East.

1	2	3	4	5	6	7
strongly disagree			neither agree or disagree			strongly agree

Most of the terrorists in the world today are Muslim.

1	2	3	4	5	6	7
strongly disagree			neither agree or disagree			strongly agree

People of the Muslim religion tend to be fanatical.

1	2	3	4	5	6	7
strongly disagree			neither agree or disagree			strongly agree

C6: Appropriateness of jokes.  
 In Canada, how appropriate is it to tell jokes about ....

Americans?  
 1 2 3 4 5 6 7 8 9  
 Not at all Very  
 appropriate appropriate

Rednecks?  
 1 2 3 4 5 6 7 8 9  
 Not at all Very  
 appropriate appropriate

Jehovah Witnesses?  
 1 2 3 4 5 6 7 8 9  
 Not at all Very  
 appropriate appropriate

Lawyers?  
 1 2 3 4 5 6 7 8 9  
 Not at all Very  
 appropriate appropriate

Muslims?  
 1 2 3 4 5 6 7 8 9  
 Not at all Very  
 appropriate appropriate

Asians?  
 1 2 3 4 5 6 7 8 9  
 Not at all Very  
 appropriate appropriate

Catholics?  
 1 2 3 4 5 6 7 8 9  
 Not at all Very  
 appropriate appropriate

Terrorists?  
 1 2 3 4 5 6 7 8 9  
 Not at all Very  
 appropriate appropriate

Hispanics?  
 1 2 3 4 5 6 7 8 9  
 Not at all Very  
 appropriate appropriate

Immigrants?  
 1 2 3 4 5 6 7 8 9  
 Not at all Very  
 appropriate appropriate



Appendix D: Study 4 materials

D1: IAT items in Study 4

Feminist	Housewife
activist	domestic
independent	naïve
liberated	nurturing
opinionated	submissive
pushy	traditional

D2: dependent variables

I am part of a group on campus called “*Feminists for Child Care/Waterloo Students for Child Care*”. Our goal is to spread awareness about the need for child care, and to hold the government accountable for the promises they have made. We are currently looking for new members, or for people who are interested in getting involved in any way.

At last count, the Region of Waterloo was short almost 33 000 child care spaces (Child Care Service Plan 2004). With 82% of the total population in Waterloo Region participating in the labour force and only 9% of children in regulated care, this warrants the question “where are the other 91% of these children receiving care?” This number only applies to children ages 0-6 years. Where are school age children (6-12) receiving care? It may be adequate care and in some cases ideal, but we know one thing, it is not licensed and it is not regulated (Catherine Fife, Waterloo Region District Schoolboard). Although most students do not need child care now, many of us will want to have access to quality child care in the future. In order to ensure it is available when we need it, we need to start demanding change today!

On the following pages I’ve listed several different ways that students can get involved in “*Feminists for Child Care/Waterloo Students for Child Care*”, each of which lists more information about the project. You can indicate interest in these activities in the space provided. Please only agree to an activity if you really want to do them, because promising to do something and not doing it will create a number of problems.

On the following pages you will find out more information about various activities.

---

Would you be willing to...

Sign a petition with these instructions?

We would like the government to follow through with their budget promises they made in the last Federal budget. We think that high-quality and affordable child care should be a priority in Canada. Everyone should be able to have access to child care.

Yes\_\_\_ No\_\_\_

---

Would you be willing to...

Wear a button saying “*Feminists for Child Care/Waterloo Students for Child Care*”?

Yes\_\_\_ No\_\_\_

Would you be willing to...

Join the “*Feminist for Child Care/Waterloo Students for Child Care Organization*”?

We are always looking for new members of our group! If you’re interested in joining, we can put you on our mailing list, so you get updates on the activities we have planned. You can also come to our meetings, and help organize upcoming events. If you’re interested, please give us your email address after the study.

Yes \_\_\_ No \_\_\_

---

Would you be willing to...

Go to a rally in a month’s time to support this cause?

Would you be willing to go to a rally to support improving child care policies in Canada? This rally would be held on campus. We plan on having several speakers, such as the president of *Feminists for Child Care/Waterloo Students for Child Care*, and local experts on why child care is so important. We also plan on marching past our local MP’s residence with noise makers to make ourselves heard!

Yes \_\_\_ No \_\_\_

---

Would you be willing to...

Distribute flyers to passing students?

The *Feminists for Child Care/Waterloo Students for Child Care* feel that it is important to get information about this cause out to the student body. That’s why we’re looking for people who would be willing to help distribute flyers around campus. If you wanted to do this with us, you could let us know what your schedule looks like, and how many hours you would like to help out for after this study. Then, you’d be paired with another student who has a similar timetable, and be assigned to an area of campus to distribute flyers. We’d also have a training session so you could find out more of the background of this cause, so you could answer questions that people might have.

Yes \_\_\_ No \_\_\_

If so, how much time could you contribute per week? \_\_\_\_\_

---

Would you be willing to...

Help to organize the rally and flyer distribution?

On top of actually handing out flyers, we're looking for people to get more involved in some of the admin stuff for our group. Specifically, we're interested in finding more people to look through everyone's timetables and match up people to distribute the flyers. You'd also be responsible for training the people who'll be distributing the flyers, choosing ideal locations on campus, and dealing with any complaints due to the flyer distribution. In the colder months, some of our flyer distributors sometimes quit, and so you might have to do some distributing yourself as well.

If you're also interested, you could be involved in planning the rally that will happen at the end of the term. This basically involves going down to the police station and getting permission to use the protest sites we want, organizing speakers and sound equipment, spreading the word about this rally, and trying to get media coverage of the event.

If you're interested, you can put down your contact info, and some of the members of the exec can contact you to set up an interview. Please let us know if you would want to just plan flyer distribution, the rally, or both.

Yes\_\_\_ No\_\_\_

How much time would you be able to commit to helping organize these activities? \_\_\_\_\_

---

Would you be willing to...

Go to Ottawa to protest outside the parliament buildings?

In order to get our message out, we need to take it straight to the Government! Along with other student protest groups, we're planning on taking over the Hill, and demanding that the government follow through with their promises!

The protest on the hill will take place on either Saturday, April 22nd, or Saturday, April 29th, depending on interest in these dates. We're planning on renting a bus, and leaving the night before. Then, we're planning on staying in the hostel in Ottawa Friday night. We'll be up bright and early Saturday morning to take to the Hill!

Yes\_\_\_ No\_\_\_

How much could you afford to spend to do this? \_\_\_\_\_  
Which date would be best for you? \_\_\_\_\_

Would you be willing to...

Attempt to be elected to the exec of the “*Feminists for Child Care/Waterloo Students for Child Care*”?

If you are really interested in our organization, you can try to run for a position on our executive committee. This is a great way to get involved, and will allow you to meet new people and play a key role in coming up with new activities to do.

Our next set of elections will be next May. While this might sound like it’s really soon to try to be elected to the exec, we encourage enthusiastic members to get as involved as they can as soon as they can!

Yes\_\_\_ No\_\_\_

Appendix E: Correlations among dependent measures in Study 1-4.

Table A1					
<i>Intercorrelations among measures in Study 1</i>					
	1	2	3	4	5
1. Implicit attitudes	-				
2. Implicit normative regard	.31 <i>p</i> = .0001	-			
3. Explicit attitudes	.13	.13	-		
4. Explicit normative regard	.10	.07	.17 <i>p</i> = .07	-	
5. Perceived discrimination	.15	.03	.41 <i>p</i> = .0001	.35 <i>p</i> = .0001	-

N = 113

Table A2				
<i>Intercorrelations among all "elderly" variables in Study 2</i>				
	1	2	3	4
1. Implicit attitudes	-			
2. Implicit normative regard	.33 <i>p</i> = .002	-		
3. Explicit attitudes	.34 <i>p</i> = .002	.05	-	
4. Explicit normative regard	-.03	-.10	-.04	-

N = 84

Table A3					
<i>Intercorrelations among all "Asian" variables in Study 2</i>					
	1	2	3	4	5
1. Implicit attitudes	-				
2. Implicit normative regard	.52 <i>p</i> = .0001	-			
3. Explicit attitudes	.45 <i>p</i> = .0001	.41 <i>p</i> = .0001	-		
4. Explicit normative regard	.28 <i>p</i> = .007	.25 <i>p</i> = .02	.70 <i>p</i> = .0001	-	
5. SAAS	.15 <i>p</i> = .15	.13	.42 <i>p</i> = .0001	.20 <i>p</i> = .06	-

N = 90

Table A4				
<i>Intercorrelations among measures in Study 3</i>				
	1	2	3	4
1. Implicit normative regard	-			
2. Explicit normative regard	.08	-		
3. Fear	-.08	.03	-	
4. Appropriateness of jokes	.02	-.16	.09	-

N = 63

Table A5					
<i>Intercorrelations among measures in Study 4</i>					
	1	2	3	4	5
1. Identification with feminism	1				
2. Implicit attitudes	.29 p = .02	1			
3. Implicit normative regard	.23 p = .06	.27 p = .03	1		
4. Explicit normative regard	.68 p = .0001	.27 p = .03	.33 p = .008	1	
5. AOS	.19	.15	.09	.11	1

N = 65

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