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Improving Attitude-Behavior Correspondence Through Exposure to Normative Support from a Salient Ingroup

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Abstract

Two experiments were conducted to test predictions derived from social identity/self-categorization theory concerning the role of group norms in attitude-behavior consistency. In Experiment 1, 160 students who could be classified as having a more or less certain target attitude, were exposed to attitude congruent versus incongruent normative support from a relevant reference group (own university) under conditions of low versus high group salience. Experiment 2 was very similar in design and methodology (N = 180), but a different correlate of attitude accessibility was used (an experimental manipulation of repeated expression), the target attitude was changed, and the reference group was gender. Across the two experiments there was consistent support for the hypothesis that participants would behave more in accordance with their attitudes when they received normative support for, rather than opposition to, their original attitude from a relevant reference group (i.e., their ingroup, not an outgroup). There was slightly weaker support for the second hypothesis that this effect would be stronger under high than low salience conditions. The third hypothesis (see Fazio, 1986), that attitude certainty and repeated expression of the attitude would strengthen attitude-behavior consistency, was well supported, as was the expectation that accessibility effects would be independent of reference group norm effects on attitude-behavior consistency.

Improving Attitude-Behavior Correspondence
Through Exposure to Normative Support from a Salient Ingroup

Early research indicating only a weak direct relationship between people's attitudes and their behavior (e.g., Wicker, 1969, see Eagly & Chaiken, 1993) has generated concerted attempts to specify variables that influence the strength of this relationship. For instance, attitude-behavior specificity (e.g., Ajzen & Fishbein, 1977; Jaccard, King & Pomazel, 1977) and attitude accessibility (e.g., Fazio, Powell & Herr, 1983; Fazio, 1986) have been proposed as important influences on attitude-behavior correspondence, whereas subjective norm has been proposed as a variable, in addition to attitude, that should be taken into account when predicting behavioral outcomes (see Ajzen, 1988; Fishbein & Ajzen, 1975). The present article explores primarily the role of group norms, but also to some extent the role of two correlates of attitude accessibility (i.e., attitude certainty and repeated expression) in attitude-behavior relations.

Norms were first systematically introduced into the attitude-behavior relationship by Fishbein and Ajzen's (1975) theory of reasoned action, that argued the presence of a subjective norm (the product of perception that significant others expect one to perform a behavior and motivation to comply with this perception) increased the probability that someone would intend to behave in an attitudinally congruent manner. Later, Ajzen (1988), through his theory of planned behavior, argued that intentions and performance of a behavior would also be influenced by perceptions of whether or not one had control over performing the behavior (perceived behavioral control). Both theories are generally well supported (see Ajzen, 1988, 1991; Sheppard, Hartwick & Warshaw, 1988; Terry, Gallois, & McCamish, 1993), except as regards the crucial subjective norm component. Ajzen's (1991) review of 19 studies revealed

that the average effect of attitude on behavioral intention (.39) was four times stronger than the average subjective norm-intention link (.10; see also Farley, Lehmann & Ryan, 1981). In addition, across the 19 studies, the subjective norm-intention link was nonsignificant in more than half of the studies. Ajzen concluded that personal variables may be more influential than social variables (i.e., norms) in predicting behavior from attitudes.

An alternative conclusion (e.g., Hogg, 1996; Terry & Hogg, 1996; Terry, Hogg & Duck, 1999; Terry, Hogg & White, 1999; White, Terry, & Hogg, 1994) is that norms are important, but that they should be conceptualized in a slightly different way to that embodied by the notion of "subjective norm". Specifically, in accord with the wider social psychological literature (e.g., Turner, 1991), norms should be viewed as explicit or implicit prescriptions concerning one's appropriate attitudes and behaviors as a member of a specific group in a specific context. A broader and more group membership-based definition such as this appears promising. For instance, research on cigarette smoking and alcohol consumption (e.g., Chassin, Presson, Sherman & Olshavsky, 1984; Grube, Morgan & McGree, 1986), and on intention to use a condom (White et al., 1994) shows that after controlling for attitude and subjective norm, the perception that others, particularly one's peers, intend to perform the behavior strengthens behavioral intentions. Other studies, testing Triandis' (1977, 1979) attitude-behavior model, also support the role of a broader social normative component, in this case a very broad social influence component that includes moral considerations, role beliefs, and social norms (e.g., Boyd & Wandersman, 1991; Brinberg, 1979; Valois, Desharnais & Godin, 1988).

A model of the role of norms in attitude-behavior relations should recognize that norms are situation specific, that conformity to norms is tied to membership in specific reference groups, and that attitudes and norms are not independent entities that have an additive

influence on behavior, but rather are interactive such that normative support encourages attitude-congruent behavior (cf. contingent consistency hypothesis; see Grube et al., 1986; Liska, 1984; Rabow, Neuman, & Hernandez, 1987). Building on social identity theory and self-categorization theory (e.g., Hogg, 1996; Hogg & Abrams, 1988; Tajfel & Turner, 1986; Turner, 1982, 1985; Turner, Hogg, Oakes, Reicher & Wetherell, 1987), we propose that attitudes, behavioral intentions, and behaviors themselves, become normative to the extent that they are context-specific defining features of membership in a psychologically salient self-inclusive social group. Behaviorally relevant norms produce behavior because the process of self-categorization in group terms constructs a context-specific ingroup prototype and assimilates the self-concept to the prototype. The self-concept is contextually transformed to become prototype-consistent, a process referred to as "depersonalization" (cf. referent informational influence; e.g., Abrams & Hogg, 1990; Hogg & Turner, 1987; Turner, 1982; Turner & Oakes, 1989). Thus, there should be a greater consistency between attitudes and behavior when there is normative support provided by a valued and contextually salient reference group for the attitudinal position.

Early research on the effects of reference group norms provides some evidence for their role in attitude-behavior relations. For example, Frideres, Warner and Albrecht (1971) showed that attitude-behavior consistency increased markedly under conditions where present others adopted an attitudinal position that was congruent with the attitude of the experimental participant. Relatedly, Schofield (1975) found that attitude-behavior consistency increased when participants were given information that the peer group was performing the behavior. Recently, Terry and Hogg (1996) found more specific support for the social identity analysis. Reference group norms (perceptions of approval by friends and peers at university for

performing the behaviors of regular exercise and sun protection) increased regular exercise behavior and strengthened sun-protective intentions among university students, but only those who identified more strongly as university students. Because Terry and Hogg's study was correlational, one impetus for the present research was to conduct an experimental study in which normative support and identity salience could be manipulated under controlled conditions.

The unique contribution of this paper is the application of a conceptualisation of norms from a social identity/self-categorization perspective to the study of attitude-behavior relations. From this perspective, social norms emanate from a specific salient reference group. The social identity/self-categorization perspective differs from previous research in that influential others are defined as members of a salient self-inclusive group with which the person identifies. Rather than conceptualising social norms as reflecting how some aggregate of other people is behaving or thinking at a given point in time, a social identity/self-categorization perspective emphasizes the importance of normative support from salient self-inclusive group memberships. In this respect, for norms to influence behavior they must be prescriptive (providing a template for how you, as a typical member, should think, feel and behave) rather than descriptive (e.g., most people who are important to me think that I should perform the behavior).

Thus, a social identity/self-categorization approach to the role of norms in attitude-behavior relations provides an explanation for when norms will influence attitude-behavior consistency; that is, when they emanate from a salient ingroup. The primary aim of this paper was to test a conceptualisation of the role of norms in attitude-behavior relations that was different from previous research, and empirically to expand on the correlational approach

conducted by Terry and Hogg (1996).

A second aim was to investigate the relationship between norms and correlates of attitude accessibility as regards their influence on attitude-behavior consistency. Fazio and his colleagues have suggested that attitude accessibility (i.e., attitude salience, cognitive availability) is a crucial influence on behavior (Fazio, Powell, & Herr, 1983; Fazio, 1986), and have provided evidence that repeated expression of an attitude (e.g., Powell & Fazio, 1984), direct experience with an attitude object (Fazio, Chen, McDonel, & Sherman, 1982), vested interest or involvement in an attitude domain (Sivacek & Crano (1982), and attitude confidence (indicative of chronic accessibility; Fazio & Zanna, 1978a), are all associated with greater attitude-behavior consistency (e.g., Fazio & Williams, 1986; Houston & Fazio, 1989; Fazio, Powell, & Williams, 1989).

From our social identity analysis, we would argue that identification with a salient ingroup may make available identity-consistent attitudes (i.e., ingroup prototypical attitudes), and thus that contextually-available group prototypical attitudes would be associated with greater attitude-behavior consistency. A social identity/self-categorization approach assumes that the impact of activating a group prototype goes beyond making an attitude accessible (or certain); it makes an attitude normative, providing the prescriptive power for a cognition to be reflected in action. Thus, activating a group prototype should influence behavior beyond simply making an attitude accessible or certain because: (a) there is a strong motivational basis to behave consistently with a group prototype as a consequence of people's need for both positive self-evaluation (self-esteem) and the reduction of uncertainty (see Hogg, 1996, in press), and (b) even if an attitude is made accessible or one is certain about the attitude, it is a relatively disembodied construct. A group prototype is a broader construct that embodies how

one should behave as well as how one should think. A group prototype can be viewed as a networked schema with associated nodes representing the feelings, thoughts, and actions of a typical group member. Even if accessible or certain attitudes do trigger group-relevant schemas, this process is one step removed from the immediate triggering of a specific group prototype. Thus, it was expected that: (a) both the correlates of attitude accessibility (attitude certainty and repeated expression) and ingroup norms would influence attitude-behavior consistency, and (b) the effects of the correlates of attitude accessibility on attitude-behavior relations would be independent of the effects due to ingroup norms (i.e., the effects of ingroup normative support on attitude-behavior consistency should not be a result of simply making an attitude more cognitively accessible or by using attitudes that participants hold with certainty).[1]

To investigate the social identity analysis of the role of norms in attitude-behavior consistency we conducted two closely related experiments, based on Fazio and colleagues' methodology (e.g., Fazio, 1986; Fazio, Powell, & Herr, 1983; Powell & Fazio, 1984), in which social identity (reference group) salience and normative support (ingroup vs. outgroup) were manipulated and correlates of attitude accessibility were either measured (attitude confidence, Experiment 1) or manipulated (repeated expression, Experiment 2).

Experiment 1

Experiment 1 focused on university students' attitudes towards, and behaviors related to, comprehensive university exams; an issue closely linked to the reference group, university students. Participants had their individuality or their university student identity rendered salient, and received normative information that either students from their own university shared their attitude whereas students from a rival university opposed their attitude, or the opposite. The ingroup/outgroup normative discontinuity was intended to accentuate reference

group salience for high salience participants. A number of measures of behavior and behavioral intention were taken. In addition, attitude confidence was measured, which has been shown to be a reliable correlate of attitude accessibility (e.g., Budd, 1986; Budd & Spencer, 1984; Fazio & Zanna, 1978a; cf. Fazio & Zanna, 1978b). On the basis of our social identity analysis we formulated three hypotheses.

We predicted that attitude-behavior consistency would be stronger among participants exposed to an attitude-congruent than attitude-incongruent ingroup norm (H1), and that this effect would be stronger for high salience participants (H2). We also predicted, that participants who held their attitudes with more certainty would behave more in accordance with their attitudes than those who held the attitudes with less certainty (H3). We did not expect to find any interactive effect of certainty with the two group variables of normative support and reference group salience on attitude-behavior relations.

Method

Participants and Design

Participants were 69 male and 91 female introductory psychology students enrolled at a large Australian university who participated in the study as a course requirement ($N = 160$). They were randomly assigned to conditions formed by the 2 x 2 manipulation of the independent variables of salience (low vs. high) and congruency of ingroup normative support (congruent vs. incongruent). The ratio of male to female participants was the same in each cell. A female experimenter conducted the study in 15-person sessions in which participants completed (a) an attitude questionnaire and (b) a self-description task, then (c) were given normative feedback, and finally (d) completed measures of behavioral intentions followed by (e) a final questionnaire checking on the norm and salience manipulations.

Procedure

The experiment was introduced as an investigation of people's attitudes and decision-making strategies. The experiment was conducted adhering to strict experimental procedures (e.g., participants were instructed not to communicate with each other, a mixture of experimental conditions were included within each experimental session, anonymity was ensured etc.). Low salience participants identified themselves on materials by first name, and were told that we were interested in individual differences in attitudes about current issues. High salience participants identified themselves by code number and their university name (University of Queensland; UQ) and were told we were interested in group differences between students from different universities. An initial questionnaire was administered to measure participants' attitudes about 12 current issues (e.g., greater police powers, legalizing marijuana) on bipolar 9-point scales (1 = oppose to 9 = support; half the items were reverse scored). The target issue was “comprehensive university examinations”, which was defined as a "general knowledge examination students would need to pass before graduation; a common practice at some US universities". It was expected that most students would oppose comprehensive examinations. This questionnaire also measured attitude certainty, by having participants indicate on 9-point bipolar scales for 3 of the 12 attitude issues (including the target issues), (a) how sure they were of their attitude, (b) how confident they were of their attitude, and (c) how much uncertainty they felt about their attitude. For the target issue, the three certainty items formed a single attitude certainty scale (α = .89).

Salience was then manipulated via a self-description procedure used by Hogg and colleagues (e.g., Hogg, Cooper-Shaw, & Holzworth, 1993; Hogg & Hains, 1996; Hogg & Hardie, 1991). Low salience participants were asked to describe themselves as an individual

person and to list attributes that made them unique as an individual person, whereas high salience participants were asked to describe themselves as a UQ student and to list similarities to other UQ students.

This task was followed by the manipulation of ingroup normative support, using a method broadly based on Reicher (1984). Participants studied bargraphs showing the percentage of opposition to three issues (including the target issue) from students at UQ (ingroup) and from students at a nearby rival university (outgroup). For participants in the ingroup normative support condition, the bargraphs indicated that students from their university (ingroup) overwhelmingly opposed the target issue, whereas students at the outgroup university supported the issue. In the outgroup normative support condition the opposite was the case. Students at the rival campus (outgroup) overwhelmingly opposed the issue, whereas students from their university (ingroup) supported the issue. In both conditions, the bargraphs indicated relatively equal opposition from students attending both universities for the two non-target issues. Participants studied the bargraphs carefully in order to answer some questions about the data presented. They had to indicate which students opposed the target issue (those from their university or from the rival university), and had to calculate the average percentage of opposition across the studies for the group of students who most opposed the target issue. These questions were designed to ensure full processing of ingroup normative information and clear identification of ingroup/outgroup differences.

In order to measure target attitude-related behavioral intentions, participants then completed a questionnaire assessing their willingness to engage in attitude-consistent or attitude-inconsistent behaviors. However, before completing the questionnaire, participants were first told that a group of students from their university had formed a group to oppose the

introduction of comprehensive university examinations and had prepared a form letter written to the government expressing opposition to the issue (cf. Sivacek & Crano, 1982). Participants were offered the opportunity to sign the form letter that was attached to the back page of the questionnaire. The questionnaire itself provided participants with an opportunity to rate their willingness to engage in behaviors related to the target attitude as well as the two non-target attitudes (i.e., self-report measures of behavior). Behaviors relating to the target attitude were carefully chosen to be specific and to be clearly associated with the relevant category (i.e., on-campus activities relating to university student affiliation). Participants indicated how willing they would be (1 = not at all willing to 7 = extremely willing) to: (a) distribute information leaflets from an on-campus organization that opposes comprehensive university examinations, (b) attend an on-campus seminar with a speaker who opposes comprehensive examinations, and (c) participate in an on-campus rally opposing comprehensive university examinations. These three items formed a single willingness scale (α = .83). Participants also indicated (yes or no) whether they would sign a petition opposing comprehensive university examinations if approached by a representative from a relevant on-campus group.

The final questionnaire before the experiment was concluded and participants were debriefed assessed the effectiveness of the two manipulations. Ingroup and outgroup normative support were checked. Participants rated how much they felt students from their university and students from the rival university opposed the target issue (1 = strongly support to 9 = strongly oppose). Reference group salience was checked by asking participants to indicate on 9-point scales (a) to what extent they felt they had responded as a UQ student (1 = not at all to 9 = a large extent), and (b) how aware of their identity as a UQ student they had been during the experiment (1 = very little to 9 = very much).

Results

In designing normative feedback we had assumed that students would generally be opposed to comprehensive examinations. Indeed, 49% (n = 80) were opposed, but 29% (n = 47) were in favor and 21% (n = 34) were undecided (i.e., scored on the scale midpoint). The ingroup normative support variable was thus scaled such that participants were classified as receiving either attitude-congruent or attitude-incongruent normative support from their ingroup[2]. Unfortunately it was not possible to determine the initial attitudinal inclination of the 34 "undecided" participants, and so they were excluded from subsequent analyses. Precautionary checks revealed that these participants were significantly less certain in their attitudinal response to the target issue (M = 4.86, based on an average of the attitude certainty items) compared to other participants (M = 6.15, $F(1, 158) = 14.60$, MSE = 27.49, $p < .001$, $\eta^2 = .09$). The final sample size was 126, with approximately equal sample sizes per cell and the same sex ratio within each cell.

Checks on Manipulations

The two salience manipulation check items (r = .72, $p < .001$) were summed to form a measure of ingroup salience. A two-way (Salience x Norm congruence) ANOVA on the salience measure confirmed the effectiveness of the salience manipulation. There was only a significant main effect for salience, $F(1, 122) = 8.06$, MSE = 14.62, $p < .01$, $\eta^2 = .06$. High salience participants (M = 8.05) believed their identity was more salient than low salience participants (M = 6.09).

There was also evidence for the effectiveness of the normative support manipulation. A two-way ANOVA (Salience x Norm congruence) performed on both the ingroup and outgroup normative support items revealed only significant main effects for normative support. For these

analyses participants were classified in terms of what normative information they originally received, and not the attitude-congruence of the norm. Participants who received ingroup normative support (M = 7.83) estimated that there was more opposition to the target issue from ingroup members than did participants who received outgroup normative support (M = 6.33), $F(1, 121) = 22.21$, MSE = 3.14, $p < .001$, $\eta^2 = .16$, and that there was less opposition to the issue from outgroup members (Ms = 5.15 and 7.61), $F(1, 120) = 48.35$, MSE = 3.87, $p < .001$, $\eta^2 = .29$.

Attitude-behavior Relations

As stated, the three items measuring willingness to engage in behaviors in accord with initial attitude (e.g., participate or not participate in an on-campus rally opposing comprehensive university examinations), were summed to form a behavioral willingness scale. Responses to the behavioral measure were recoded in terms of whether the response was attitudinally congruent (see Table 1 for the Ms, SDs, and intercorrelations among variables for the dependent measures in Experiment 1).

Insert Table 1 about here

To investigate the role of salience, norm congruency and attitude confidence on the dependent measures, a series of regression analyses were performed. A hierarchical linear regression analysis was conducted testing main and interactive effects for the three predictors of salience, norm congruency and attitude confidence on the behavioral willingness scale. Salience, norm congruency and attitude confidence were entered into the equation on the first step, with the 2-way interaction terms entered on the second step, and the 3-way interaction

term entered on the final step. To test for interactive effects, centered variables were used, calculated as deviations from the mean (Aiken & West, 1991), to ensure that mulitcollinearity between the predictors and interaction terms did not distort the results of the analysis. None of the steps were significant (all $\underline{F}s \leq 1.28$, $\underline{p}s > .05$, $\underline{R}^2ch < .04$) and, after all variables were entered into the equation, no significant predictors emerged (all $\underline{t}s \leq 1.91$, $\underline{p}s > .05$).

Inspection of responses to the two binary behavioral measures (signing a form letter and willingness to sign a petition) revealed that 68 (54%) of participants signed the form letter and 81 (64%) were willing to sign the petition. Logistic regression analyses were performed on these two binary outcome measures (again recoded in terms of whether the responses were attitudinally congruent) and the three predictors of salience, norm congruency and attitude confidence. Interactive terms were also tested for both analyses, tested separately on a second step (following the procedure outlined by Hosmer & Lemeshow, 1989). A test of the model with the three predictors on preparedness to sign a relevant petition was statistically reliable ($\chi^2\{3, \underline{N} = 126\} = 16.46$, $\underline{p} < .01$). According to the Wald criterion, both norm congruency ($\underline{B} = 2.46$, $\underline{SE} = 0.82$, $\underline{z} = 8.98$, $\underline{p} < .01$, Exp {B} = 11.72) and attitude confidence ($\underline{B} = 0.14$, $\underline{SE} = 0.06$, $\underline{z} = 5.32$, $\underline{p} < .05$, Exp {B} = 1.15) reliably predicted preparedness to sign a petition. As expected, participants who were exposed to a congruent rather than incongruent norm and those who reported more certainty in their attitude towards the target issue were more likely to behave consistently with their initial attitude for petition-signing. Entry of each 2nd step interaction term did not improve reliably the fit of the model (all $\chi^2 s \leq 0.18$, $\underline{p}s > .05$).

A test of the model with the three predictors on the form letter measure was not statistically reliable ($\chi^2\{3, \underline{N} = 126\} = 4.64$, $\underline{p} = .20$). According to the Wald criterion, however, there was a weak trend to suggest that norm congruency ($\underline{B} = 0.86$, $\underline{SE} = 0.47$, $\underline{z}$ =

3.40, p = .065, Exp {B} = 2.36) predicted signing of the form letter. As expected, participants who were exposed to a congruent rather than incongruent norm were more likely to behave in accordance with their original attitude. Entry of each 2nd step interaction term did not improve reliably the fit of the model (all χ^2s ≤1.03, ps > .05).

Discussion

Manipulation checks confirmed that both independent variables were successfully manipulated, though it should be noted that the absolute levels of salience were rather low in both high (M = 8.05 on a 18-point scale) and low salience conditions (M = 6.09).

Analyses revealed support for two of the three experimental hypotheses. Participants exposed to an attitude-congruent ingroup norm were more likely than participants exposed to an attitude-incongruent ingroup norm to behave in accordance with their initial attitude (H1). Participants exposed to an attitude-congruent norm showed more attitude-behavior consistency than participants exposed to an attitude-incongruent norm on the form letter and petition-signing measures. It should be noted that these measures are located towards the behavioral end of the behavioral measures employed in the study. It was also predicted that the effect under H1 would be accentuated among high salience participants (H2). This interaction was not significant.

H3 addressed the effect of attitude certainty (a correlate of attitude accessibility) on attitude-behavior consistency. Results revealed some evidence that participants reporting greater certainty in their attitudes were more likely to behave in accordance with their attitudes than those with less certain attitudes: participants who reported more certainty in their attitude towards comprehensive examinations showed greater attitude-behavior consistency for petition-signing than participants who reported less certainty in their attitude. This finding is

consistent with Fazio and colleagues' analysis of attitude accessibility correlates and attitude-behavior consistency (see Fazio, 1986; Fazio et al., 1983; Fazio et al., 1989), and the absence of any interactions involving attitude certainty and norm congruency is consistent with our expectations concerning the relative independence of individual attitude accessibility correlates and social identity processes.

Overall, Experiment 1 confirmed our general hypothesis that behavior should correspond more strongly with attitudes when there exists an attitude-congruent ingroup norm than an attitude-incongruent ingroup or attitude-congruent outgroup norm. However, the effect was not influenced by salience; it was not attenuated under low and accentuated under high salience conditions. Although the salience manipulation was effective as indicated by a significant effect for salience on measures checking salience it should be noted that the absolute levels of salience were low, hence any variation may have been relatively psychologically unimpactful. Also, although the issue of comprehensive university examinations should be very relevant to university student identity, it appears that our sample may not have been sufficiently well informed to recognise this link particularly strongly. In support of this point, attitude certainty for the issue of comprehensive exams was not particularly high ($\underline{M}$ = 6.15 on a composite scale of three 9-point items) and was significantly lower than attitude certainty for the other two attitude items for which certainty ratings were obtained; legalization of marijuana ($\underline{M}$ = 6.94), $\underline{F}(1, 125) = 13.76$, $\underline{MSE}$ = 25.44, $\underline{p} < .001$, η^2 = .10, and abortion on demand ($\underline{M}$ = 7.32), $\underline{F}(1, 125) = 27.68$, $\underline{MSE}$ = 27.88, $\underline{p} < .001$, $\eta^2 = .18$. Experiment 2 was designed to strengthen the attitude-identity link.

We found support for Fazio and colleagues' (see Fazio, 1986; Fazio et al., 1983; Fazio et al., 1989) view that correlates of attitude accessibility are associated with increased attitude-

behavior consistency, and our own view that accessibility and group membership processes might be relatively independent. However, the possibility exists that, because the correlate of accessibility was a measured, not manipulated, variable, the probability of obtaining interactions was inhibited; chronic accessibility may simply have been too strong relative to the experimentally manipulated variables. An aim of Experiment 2 was to re-address the role of attitude accessibility correlates, but this time as a manipulated variable.

Experiment 2

Experiment 2 was designed to be as closely based on Experiment 1 as permitted by the changes necessary to manipulate a correlate of attitude accessibility and to strengthen the salience manipulation. The target attitude was "separate bicycle lanes on roads" that was linked to gender identity. Under conditions of high or low gender salience, participants were exposed to attitude-congruent or attitude-incongruent ingroup normative support (contrasted with the outgroup norm). A correlate of attitude accessibility was manipulated by the method of “repeated expression”, that has been successfully used to strengthen the association between attitude and attitude object in memory (e.g., Downing, Judd, & Brauer, 1992; Powell & Fazio, 1984), and checked by a response latency method.

The experimental hypotheses matched the same three proposed for Experiment 1. We predicted that attitude-behavior consistency would be stronger among participants exposed to an attitude-congruent than attitude-incongruent ingroup norm (H1), and that this effect would be stronger for high salience participants (H2). We also predicted, that participants who repeatedly expressed their attitude towards the target issue would behave more in accordance with their attitudes than those who did not repeatedly express their attitude (H3). We did not expect to find any interactive effect of certainty with the two group variables of normative

support and reference group salience on attitude-behavior relations.

Method

Participants and Design

Participants were 76 male and 104 female introductory psychology students enrolled at a large Australian university who participated in the study as a course requirement (N = 180). They were randomly assigned to conditions formed by the 2 x 2 x 2 manipulation of the independent variables of salience (low vs. high), repeated expression (low vs. high), and congruence of ingroup normative support (congruent vs. incongruent). The ratio of male to female participants was the same in each cell. A female experimenter conducted the study in 15-person sessions in which participants completed (a) two attitude questionnaires and (b) a self-description task, then (c) were given two forms of normative feedback, and (d) completed measures of behavioral intentions followed by (e) checks on the norm and salience manipulations.

Procedure

The experiment was introduced as an investigation of people's attitudes and decision-making strategies. Low salience participants identified themselves on materials by first name, and were told that we were interested in individual differences in attitudes about current issues. High salience participants identified themselves by code number and their gender and were told we were interested in group differences between men and women.

In order to measure initial attitudes and to manipulate repeated expression we used Powell and Fazio's (1984) procedure. Participants completed a questionnaire in which 12 current issues (e.g. legalizing marijuana, greater police powers) were presented repeatedly in

carefully controlled patterns and frequencies to make a total of 30 item presentations. Each item presentation was rated on one of six 9-point semantic differentials: approve/disapprove, appropriate/inappropriate, good/bad, like/dislike, favorable/unfavorable, desirable/undesirable. We explained to participants that, although repetitive, each attitude prompt was linked to a unique adjective-pair, and was, therefore, providing a unique piece of information. High repeated expression participants rated the focal issue of “separate bicycle lanes on roads” six times, whereas low repeated expression participants did not rate this issue at all. We assumed that participants would generally be in favor of separate bicycle lanes. All participants then completed a second questionnaire in which they rated each of the 12 issues only once on bipolar 29-point scales (1 = oppose to 29 = support). These items served as our measure of baseline attitude and a measure to check the effects of repeated expression on extremity (see Downing et al., 1992). By the end of the second questionnaire, low repeated expression participants had rated the focal attitude only once whereas high repeated expression participants had rated it seven times.

The effectiveness of the repeated expression manipulation was confirmed via a pilot study on 6 men and 37 women (N = 43) from the same population as the experimental participants. Half the participants were administered the high repeated expression attitude questionnaire and half the low repeated expression version, and then, following Houston and Fazio's (1989) procedure, their response latencies (responding on a scale of 1 = strongly opposed to 5 = strongly in favor) were measured. To be comparable with the repeated expression manipulation in the main study, the initial questionnaires were slightly modified so that the latency task was the first (low repeated expression) or the seventh (high repeated expression) time they had seen the target attitude. One-way ANOVA on the latency scores for

the target issue revealed a significant effect for repeated expression, $\underline{F}(1, 41) = 8.23$, $\underline{MSE} = .76$, $\underline{p} < .01$, $\eta^2 = .17$. Participants in the high repeated expression condition responded significantly faster ($\underline{M} = 2.10$, $\underline{SD} = .74$ seconds) than participants in the low repeated expression condition ($\underline{M} = 2.86$, $\underline{SD} = .99$ seconds). Additional analyses on the full sample of experimental participants in the present study found that attitude extremity scores (deviation scores from the scale midpoint) did not differ significantly as a function of repeated expression (cf. Downing et al., 1992).

As in Experiment 1, participants then completed a self-description task designed to manipulate identity salience. Low salience participants were asked to describe themselves as an individual person and to list attributes that made them unique as an individual, whereas high salience participants were asked to describe themselves in terms of their gender and to list (non-biological) aspects of themselves they shared with other men or women in their peer group that made them different from members of the opposite sex. In addition to these questions and in order to strengthen the salience manipulation used in Study 1, low salience participants were also asked to list their strengths that made them unique as an individual person, whereas high salience participants listed the strengths of their own sex compared to members of the opposite sex. By asking high salience participants to focus on the strengths of their group, it was expected that this would not only heighten their ingroup salience, but also emphasize the positive characteristics of their group, rather than simply identifying inter-group differences.

This task was followed by a manipulation of normative support, designed to ensure full processing of ingroup normative information and clear identification of ingroup/outgroup differences. Participants studied statistics showing the percentage of support for three issues

(including the target issue) from both men and women. For participants in the ingroup normative support condition, the percentages indicated that members of their sex (ingroup) overwhelmingly supported the target issue, whereas members of the opposite sex (outgroup) opposed the issue. In the outgroup normative support condition the opposite was the case. Members of the opposite sex (outgroup) overwhelmingly supported the issue, whereas members of their sex (ingroup) opposed the issue. In both conditions, the statistics indicated relatively equal support from both sexes for the two non-target issues. Participants studied the statistics carefully in order to answer some questions about the data presented. They had to indicate which sex supported the target issue, and had to calculate the average percentage of support across the studies for the sex that most supported the target issue.

To further manipulate normative support, participants also studied three- or four-sentence statements ostensibly written by five men and five women about their attitude positions (e.g., “I would support it. What gets me so angry is when bikes have to try and fight their way in traffic, especially in peak hours. A friend of mine was nearly knocked over by someone going way too fast. I would welcome a separate lane – it might even encourage me to ride my bike more often.”). Participants in the ingroup normative support condition read four supportive and one ambivalent ingroup statement, and four oppositional and one ambivalent outgroup statement. The opposite pattern was provided for outgroup normative support participants. Order of presentation (ingroup or outgroup first) was counterbalanced across conditions, and participants had to integrate and summarize for ingroup and outgroup separately the opinions presented in the statements. Participants also had to indicate, with relevant comments, which of the two methods of presentation of attitude information (percentages vs. representative statements) they considered to be more effective.

To measure target attitude-related behavior, or behavioral intentions, participants next completed a questionnaire assessing their willingness to engage in attitude-consistent or attitude-inconsistent behaviors. However, before completing the questionnaire, participants were told their state transport department was interested in their attitudes towards the provision of separate bicycle lanes on roads, and that one aspect of the study was to provide the state government with this information. Participants were issued a ballot paper describing the proposal and providing the option to check yes or no. Participants were also given a second sheet where they rated their commitment to a local student union scheme to introduce a trial system of separate bicycle lanes on roads around the campus and in adjoining residential areas. They indicated how much of their time they would be willing to give to a committee co-ordinating the scheme (1 = no time to 6 = unlimited time).

The questionnaire itself provided participants with an opportunity to rate their willingness to engage in behaviors related to the target attitude as well as the two non-target attitudes (i.e. self-report measures of behavior). There were four questions for each of the three issues. For the target issue, participants indicated how willing they would be (1 = not at all willing to 9 = extremely willing) to: (a) accept a flier/handout from a group supporting separate bicycle lanes, (b) help distribute information leaflets for such a group, (c) attend an organized seminar with a speaker from such a group, and (d) take part in an organized rally supporting bicycle lanes. These four items produced a single index of willingness to engage in behavior supportive of bicycle lanes (α = .82). Participants also indicated (yes or no) whether, if approached by a relevant organization, they would be prepared to sign a petition supporting separate bicycle lanes.

As in Experiment 1, the final questionnaire before the experiment was concluded and

participants were debriefed assessed the effectiveness of the salience and normative congruency manipulations. Ingroup and outgroup normative support were checked by having participants rate how much they felt members of each sex supported the target issue (1 strongly support to 9 strongly oppose). Reference group salience was checked by asking participants to indicate on 9-point scales (a) to what extent they felt they had responded as a man or woman (1 = not at all to 9 = a large extent), and (b) how aware of their identity as a man or woman they had been during the experiment (1 = very little to 9 = very much).

Results

As in Experiment 1, the normative support variable was recast in terms of attitude-congruent and attitude-incongruent normative support from the ingroup. In order to do this, five participants (3 men, 2 women) whose initial attitudes were at the midpoint of the 29-point attitude scale were excluded, leaving 175 participants. A further eight participants (5 men, 3 women) were excluded because they identified themselves extremely strongly as members of a cyclist group (i.e., "9" on a 9-point cyclist scale that had been included as a screening device). The final sample size was 167 participants, with roughly the same sex ratio in each cell. Precautionary analyses incorporating sex of participant as a variable revealed that sex did not interact with any of the reported findings.

Checks on Manipulations

The two salience manipulation check items ($r = .62$, $p < .001$) were summed to form a measure of ingroup salience. A three-way, 2 (Salience) x 2 (Norm congruence) x 2 (Repeated expression) ANOVA on the salience measure confirmed the effectiveness of the salience manipulation. There was only a significant main effect for salience, $F(1, 154) = 6.03$, $MSE = 16.37$, $p < .05$, $\eta^2 = .04$. Participants in the high salience condition ($M = 9.04$) believed their

identity was more salient than participants in the low salience condition (M = 7.43).

Three-way ANOVAs on the items checking ingroup and outgroup normative support confirmed the effectiveness of the normative support manipulation. On both items there was only a significant main effect for normative support. As in Study 1, for these analyses participants were classified in terms of what normative information they originally received, and not the attitude-congruence of the norm. Participants who received ingroup normative support (M = 5.98) estimated that there was more support for the target issue from ingroup members than did participants who received outgroup normative support (M = 4.89), F(1, 158) = 7.38, MSE = 6.80, $p < .01$, $\eta^2 = .05$, and that there was less support for the issue from outgroup members (Ms = 5.22 and 6.28), F(1, 157) = 6.30, MSE = 7.36, $p < .05$, $\eta^2 = .04$.

Attitude-behavior Relations

A stated, the four items measuring willingness to engage in behaviors in accord with initial attitude (e.g., whether or not to attend a seminar organized by a group supporting separate bicycle lanes) were summed to form a behavioral willingness scale. A factor analysis of these items and the item measuring amount of time participants were willing to offer to implement a trial scheme of separate bicycle lanes indicated that there were 2 separate factors (the first factor comprising the willingness items and the second factor comprising the time offer item). Therefore, the willingness scale and the time offer measure were subjected to separate ANOVA analyses.

A three-way (Salience x Norm congruence x Repeated expression) ANOVA was conducted on the scale measuring willingness to engage in behaviors in accord with the initial attitude. As in Experiment 1, all responses to the behavioral measures were recoded in terms of whether the response was attitudinally congruent (see Table 2 for the Ms, SDs and

intercorrelations among measures for the dependent measures in Experiment 2). The results of the ANOVA indicated that there were no significant main or interactive effects (all Fs ≤ 3.69, ps > .05, η^2s ≤ .02).

Insert Table 2 about here

A second three-way (Salience x Norm congruence x Repeated expression) ANOVA was performed on the measure of amount of time participants were willing to offer to implement a trial scheme of separate bicycle lanes. The analysis revealed a significant interactive effect for the salience by norm congruence interaction, $F(1, 155) = 6.66$, MSE = 1.77, $p < .05$, $\eta^2 = .04$ (see Figure 1). Tests of simple effects revealed that participants exposed to norm congruent information were willing to behave more consistently with their initial attitude for amount of time willing to give to a committee under conditions of high (M = 2.05) than low salience (M = 1.46), $F(1, 155) = 3.95$, $p < .05$, $\eta^2 = .03$. Participants exposed to norm incongruent information did not differ significantly as a function of high versus low salience (Ms = 1.47 and 1.98), $F(1, 155) = 2.91$, $p > .05$, $\eta^2 = .02$. There was also a tendency for high salience participants to be willing to behave more consistently with their initial attitude for amount of time willing to offer after exposure to an attitude-congruent (M = 2.05) rather than an attitude-incongruent ingroup norm (M = 1.47), $F(1, 155) = 3.75$, $p = .055$, $\eta^2 = .02$. No other effects were significant (all Fs ≤ .87, ps > .05, η^2s ≤ .01) .

Insert Figure 1 about here

Inspection of responses to the two binary behavioral measures (the state transport ballot and willingness to sign a petition) revealed that 83% (n = 136) of participants voted in favor of the proposal and 87% (n = 144) were willing to sign a petition supporting bicycle lanes. Logit analyses were performed on these two binary measures (again recoded in terms of whether the responses were attitudinally congruent). Results of the tests of significance (partial association chi-square tests) yielded by the logit analyses revealed a significant main effect for normative congruence on willingness to sign a relevant petition, $\chi^2(1, N = 165) = 6.78$, $p < .01$, with more participants in the ingroup norm congruent (94%) than in the incongruent (81%) condition indicating that they would behave consistently with their initial attitudes (odds ratio = 3.67). There was also a significant main effect for repeated expression on willingness to sign a petition, $\chi^2(1, N = 165) = 8.87$, $p < .01$. More participants in the high (95%) than low (80%) repeated expression condition indicated that they would behave consistently with their initial attitudes (odds ratio = 4.75).

On the ballot measure, there was a weak main effect for normative congruence, $\chi^2(1, N = 164) = 3.26$, $p = .07$, with more participants in the norm congruent (90%) than in the norm incongruent (80%) condition voting consistently with their attitude (odds ratio = 2.25). There was also a significant main effect for repeated expression, $\chi^2(1, N = 164) = 6.22$, $p < .05$, with more participants in the high (90%) than in the low (80%) repeated expression condition voting consistently with their original attitude (odds ratio = 2.25).

Discussion

Manipulation checks confirmed that the three independent variables had been successfully manipulated. As in Experiment 1, it should be noted that the absolute levels of salience were relatively low, but were higher than the comparable items in the previous

experiment (in both low and high salience conditions).

Analyses revealed varying degrees of support for all three hypotheses. Participants exposed to an attitude-congruent ingroup norm were more likely than participants exposed to an incongruent norm to behave consistently with their initial attitude on the petition-signing measure and to vote in line with their attitude (H1). As predicted under H2, norm congruence interacted with salience such that it was high salience participants exposed to an attitude-congruent ingroup norm who expressed the greatest willingness to engage in attitude-consistent behavior. The prediction that participants who repeatedly expressed their attitude towards the target issue would behave more in accordance with their attitudes than those who did not repeatedly express their attitude (H3), was upheld on two measures of behavior (i.e., willingness to sign a petition supporting bicycle lanes and voting in a comparable manner in a state government {ostensibly} ballot). These results confirm Fazio and colleagues' (see Fazio, 1986; Fazio et al., 1983; Fazio et al., 1989) predictions about the role of correlates of attitude accessibility in attitude-behavior consistency. As in Experiment 1, the absence of norm congruency by repeated expression interactions confirms our expectation that individual attitude accessibility processes and group membership processes independently influence attitude-behavior relations.

General Discussion

Two experiments investigated the effects of normative support, reference group salience, and correlates of attitude accessibility on attitude-behavior consistency. The experiments used comparable paradigms and methodologies, but different reference groups (university students in Experiment 1, and gender in Experiment 2), different attitudes (comprehensive university examinations in Experiment 1, and separate bicycle lanes in

Experiment 2), and different operationalizations of reliable correlates of attitude accessibility (a measured variable in Experiment 1, a manipulated variable in Experiment 2). A similar set of three hypotheses was tested by both experiments.

The most robust finding (H1) was that participants were more likely to behave in accordance with their attitudes when they received normative support for, rather than opposition to, their original attitude from a relevant reference group (i.e., their ingroup, not an outgroup). This finding was replicated across the two experiments. In Experiment 2, where the manipulation of reference group salience was more successful than in Experiment 1, we also found that the effect under H1 was stronger under high than low salience conditions (H2). These findings are consistent with our social identity/self-categorization analysis of attitude-behavior relations. Although we are interested here in congruence between individual attitude and ingroup prescription, our design did not allow for a sound analysis of undecided participants who might prove interesting in terms of the influence of a salient ingroup. This question may prove fruitful for further research. Similarly, exposure to no ingroup or even neutral ingroup information is theoretically interesting and future research in this area should highlight the extent to which an ingroup needs to be supportive in order to be impactful on attitude-behavior consistency. Also, the impact of the extent to which the source of normative support is an ingroup rather than a social aggregate is another avenue for further research.

In both experiments, there was also support for Fazio's (see Fazio, 1986; Fazio et al., 1983; Fazio et al., 1989) prediction that greater attitude accessibility would be associated with stronger attitude-behavior correspondence (H3). The fact that in both studies the correlates of accessibility did not interact with reference group salience or normative support supports the possibility that social identity and cognitive accessibility processes may influence attitude-

behavior relations independently. Perhaps people do behave in accordance with their attitudes if those attitudes are accessible or held with certainty, but quite independently they may also bring their behavior in line with their attitudes (whether they are accessible or not) when there is normative support for their attitudes from a contextually salient ingroup. This finding differs from the approach offered by Gross, Holtz and Miller (1995) who argue that norms are a partial determinant of certainty, and therefore, the effects of norms and certainty should covary. Future research should examine in more depth the interplay between correlates of attitude accessibility and group norms on attitude-behavior relations. Although the present results suggest that the two processes operate independently, it is possible that exposure to an attitudinally-congruent ingroup norm impacts on attitude-behavior consistency by increasing the accessibility of attitudes in memory, and hence the likelihood that they will be acted upon in a given behavioral context.

Overall, the results of the two studies were consistent with expectations. There was, however, only weak support for the expectation that the effects of norm congruency would be moderated by group salience (H2). As noted previously, the failure to find stronger support for this prediction can be attributed to the fact that the salience manipulation could have been stronger. Although there was evidence in both studies that the manipulation was effective, levels of salience were not high, particularly in Experiment 1, where no moderating effects of group salience were observed. Nevertheless, the significant norm congruency by salience interaction observed in Experiment 2 is consistent with the social identity approach tested in the present research, and is consistent with results from two separate field studies reported by Terry and Hogg (1996) indicating that the effects of ingroup norms on behavioral outcomes were most marked for participants who identified strongly (as a measure of enduring salience

of group membership) with the relevant ingroup. In the experimental context, future research needs to develop stronger manipulations of group salience; clearly, a "self-description" task does not constitute a strong manipulation of this variable. Preliminary tasks that engender competition between groups (high salience) or individuals (low salience) may be useful in this regard.

Although the salience manipulation was not as strong as it could be, the present research had a number of other strengths. The fact that the experiments incorporated both measured (Experiment 1) and manipulated (Experiment 2) levels of the correlates of accessibility means that the lack of interactive effects involving certainty or repeated expression could not be attributed to a reliance on one operationalization of the correlates of attitude accessibility. In a similar vein, the use of the different group memberships and different target issues across the two studies means that the obtained results cannot be considered to be group- or target-specific. The present results are further strengthened by the fact that a range of different behavioral measures were used in each experiment. In both studies, these measures ranged from willingness or intention measures (typically employed in attitude-behavior research) to responses that constituted overt behavioral responses (such as voting in the ballot in Experiment 2).

The current findings have significance for the following applications. First, the improved correspondence between attitudes and behaviors upon exposure to supportive ingroup norms has applications for the design of programs where positive attitudes translate to desirable behavioral outcomes, such as programs in health-related areas (e.g., anti-smoking and safer sex campaigns). Providing a supportive normative climate linked explicitly to a clear reference group increases the likelihood that individuals will engage in attitude-consistent

behavior. Second, there was some evidence to suggest that enhancing the salience of a social category will increase category relevant attitude-behavior consistency. Reminding individuals of their group membership should increase category salience, thereby increasing the desired attitude-behavior consistency. For example, in fund-raising activities for an environmental cause, priming a generic social category (e.g., young professionals) and a relevant norm (e.g., young professional's support of environmental causes) should increase the likelihood of donations.

In conclusion, the findings of the present study can be considered to be important in that they provide clear evidence that exposure to an ingroup norm, particularly if the group membership is salient, does influence the strength of the attitude-behavior relationship. These results support the application of social identity and self-categorization theories to the study of attitude-behavior relations, and open the way for further research to take a more fine-grained look at the role that group membership and group norms play in this context.

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Footnotes

[1]It should be noted that there is concern about the relatedness of the indicators of attitude strength with a number of researchers concluding that the various indicators may reflect differing underlying constructs (e.g., Abelson, 1988; Krosnick, Boninger, Chuang, Berent & Carnot, 1993; Raden, 1985; see also Petty & Krosnick, 1994). Despite this debate, there is some support for the measurement of attitude confidence as a reliable correlate of attitude accessibility (see e.g., Budd, 1986; Budd & Spencer, 1984; Fazio & Zanna, 1978a, 1978b; see also Gross, Holtz & Miller, 1994) and the effectiveness of the repeated expression technique as a manipulation of attitude accessibility (see e.g., Downing et al., 1992; Fazio et al., 1982; Powell & Fazio, 1984; Roese & Olsen, 1994; see also Judd & Brauer, 1994). In the present research, both attitude confidence (Study 1) and the repeated expression technique (Study 2) were used to examine the role of attitude accessibility.

[2]The own position (favor vs. oppose) and ingroup position (favor vs. oppose) variables were recoded to reflect “congruency of normative support” because of the small number of participants in Study 2 opposing the target issue, producing extremely uneven cell sizes for the own position variable.

Table 1

Experiment 1: Means, Standard Deviations, and Correlation Coefficients for all Dependent Measures

Dependent Measure	M (n=126)	SD	Pearson's Correlation Coefficient (r)					
			1	2	3	4	5	6
1. Salience Manipulation Check	7.04	3.92	-	-.12	-.03	.08	.18	.08
2. Ingroup Normative Support Manipulation Check	7.08	1.92		-	-.13	-.15	-.02	-.06
3. Outgroup Normative Support Manipulation Check	6.38	2.33			-	.00	.12	.17
4. Behavioral Willingness	13.90	4.57				-	.34***	.31***
5. Form Letter	1.79	.41					-	.48***
6. Petition	1.87	.33						-

Note. Correlations are partial correlations with manipulated independent variables partialled out. Two-tailed tests of significance were performed.

*** $p < .001$

Table 2

Experiment 2: Means, Standard Deviations, and Correlation Coefficients for all Dependent Measures

Dependent Measure	M (n=166)	SD	Pearson's Correlation Coefficient (r)						
			1	2	3	4	5	6	7
1. Salience Manipulation Check	8.24	4.14	-	-.03	-.04	-.01	.00	-.05	-.11
2. Ingroup Normative Support Manipulation Check	5.43	2.63		-	-.37***	-.17*	-.02	.10	.14
3. Outgroup Normative Support Manipulation Check	5.75	2.72			-	.13	-.02	.01	.06
4. Behavioral Willingness	16.07	6.11				-	.31***	.18***	.29***
5. Time Offer	1.76	1.33					-	.10	.12
6. Ballot	1.86	.35						-	.51***
7. Petition	1.87	.33							-

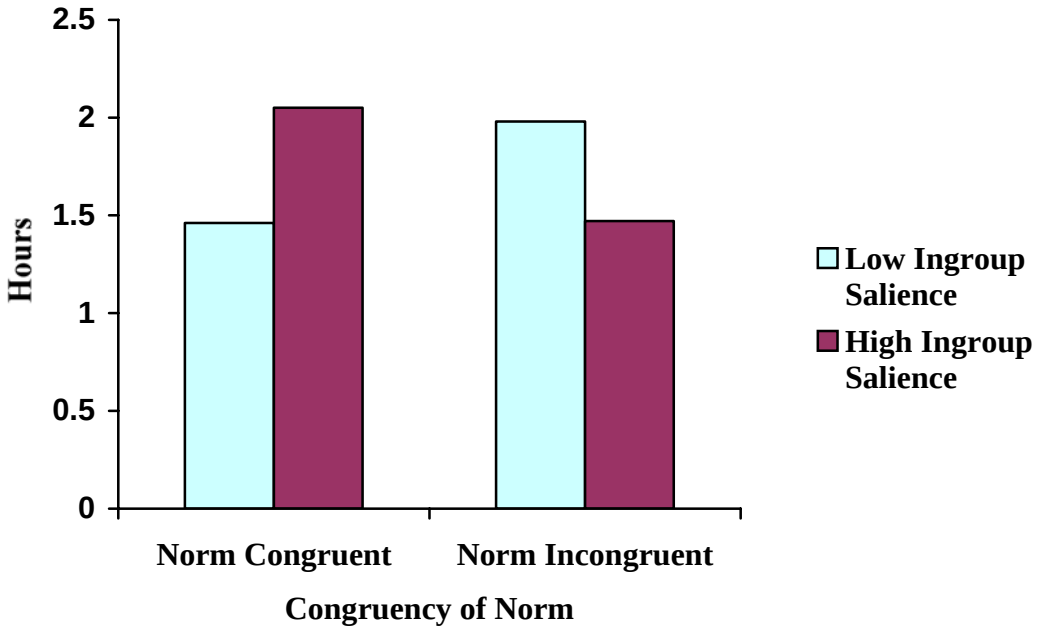
Note. Correlations are partial correlations with manipulated independent variables partialled out. Two-tailed tests of significance were performed.

*p < .05

*** p < .001

Figure caption

Figure 1. Effect of norm congruency and salience on attitude-behavior consistency on measure of hours willing to donate to a committee.


2.5
2
1.5
1
0.5
0
Hours
Norm Congruent
Norm Incongruent
Congruency of Norm
Low Ingroup Salience
High Ingroup Salience

Running head: ATTITUDE-BEHAVIOR CORRESPONDENCE

Improving Attitude-Behavior Correspondence Through Exposure to Normative Support from a Salient Ingroup

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Abstract

Two experiments were conducted to test predictions derived from social identity/self-categorization theory concerning the role of group norms in attitude-behavior consistency. In Experiment 1, 160 students who could be classified as having a more or less certain target attitude, were exposed to attitude congruent versus incongruent normative support from a relevant reference group (own university) under conditions of low versus high group salience. Experiment 2 was very similar in design and methodology (N = 180), but a different correlate of attitude accessibility was used (an experimental manipulation of repeated expression), the target attitude was changed, and the reference group was gender. Across the two experiments there was consistent support for the hypothesis that participants would behave more in accordance with their attitudes when they received normative support for, rather than opposition to, their original attitude from a relevant reference group (i.e., their ingroup, not an outgroup). There was slightly weaker support for the second hypothesis that this effect would be stronger under high than low salience conditions. The third hypothesis (see Fazio, 1986), that attitude certainty and repeated expression of the attitude would strengthen attitude-behavior consistency, was well supported, as was the expectation that accessibility effects would be independent of reference group norm effects on attitude-behavior consistency.

Improving Attitude-Behavior Correspondence
Through Exposure to Normative Support from a Salient Ingroup

Early research indicating only a weak direct relationship between people's attitudes and their behavior (e.g., Wicker, 1969, see Eagly & Chaiken, 1993) has generated concerted attempts to specify variables that influence the strength of this relationship. For instance, attitude-behavior specificity (e.g., Ajzen & Fishbein, 1977; Jaccard, King & Pomazel, 1977) and attitude accessibility (e.g., Fazio, Powell & Herr, 1983; Fazio, 1986) have been proposed as important influences on attitude-behavior correspondence, whereas subjective norm has been proposed as a variable, in addition to attitude, that should be taken into account when predicting behavioral outcomes (see Ajzen, 1988; Fishbein & Ajzen, 1975). The present article explores primarily the role of group norms, but also to some extent the role of two correlates of attitude accessibility (i.e., attitude certainty and repeated expression) in attitude-behavior relations.

Norms were first systematically introduced into the attitude-behavior relationship by Fishbein and Ajzen's (1975) theory of reasoned action, that argued the presence of a subjective norm (the product of perception that significant others expect one to perform a behavior and motivation to comply with this perception) increased the probability that someone would intend to behave in an attitudinally congruent manner. Later, Ajzen (1988), through his theory of planned behavior, argued that intentions and performance of a behavior would also be influenced by perceptions of whether or not one had control over performing the behavior (perceived behavioral control). Both theories are generally well supported (see Ajzen, 1988, 1991; Sheppard, Hartwick & Warshaw, 1988; Terry, Gallois, & McCamish, 1993), except as regards the crucial subjective norm component. Ajzen's (1991) review of 19 studies revealed

that the average effect of attitude on behavioral intention (.39) was four times stronger than the average subjective norm-intention link (.10; see also Farley, Lehmann & Ryan, 1981). In addition, across the 19 studies, the subjective norm-intention link was nonsignificant in more than half of the studies. Ajzen concluded that personal variables may be more influential than social variables (i.e., norms) in predicting behavior from attitudes.

An alternative conclusion (e.g., Hogg, 1996; Terry & Hogg, 1996; Terry, Hogg & Duck, 1999; Terry, Hogg & White, 1999; White, Terry, & Hogg, 1994) is that norms are important, but that they should be conceptualized in a slightly different way to that embodied by the notion of "subjective norm". Specifically, in accord with the wider social psychological literature (e.g., Turner, 1991), norms should be viewed as explicit or implicit prescriptions concerning one's appropriate attitudes and behaviors as a member of a specific group in a specific context. A broader and more group membership-based definition such as this appears promising. For instance, research on cigarette smoking and alcohol consumption (e.g., Chassin, Presson, Sherman & Olshavsky, 1984; Grube, Morgan & McGree, 1986), and on intention to use a condom (White et al., 1994) shows that after controlling for attitude and subjective norm, the perception that others, particularly one's peers, intend to perform the behavior strengthens behavioral intentions. Other studies, testing Triandis' (1977, 1979) attitude-behavior model, also support the role of a broader social normative component, in this case a very broad social influence component that includes moral considerations, role beliefs, and social norms (e.g., Boyd & Wandersman, 1991; Brinberg, 1979; Valois, Desharnais & Godin, 1988).

A model of the role of norms in attitude-behavior relations should recognize that norms are situation specific, that conformity to norms is tied to membership in specific reference groups, and that attitudes and norms are not independent entities that have an additive

influence on behavior, but rather are interactive such that normative support encourages attitude-congruent behavior (cf. contingent consistency hypothesis; see Grube et al., 1986; Liska, 1984; Rabow, Neuman, & Hernandez, 1987). Building on social identity theory and self-categorization theory (e.g., Hogg, 1996; Hogg & Abrams, 1988; Tajfel & Turner, 1986; Turner, 1982, 1985; Turner, Hogg, Oakes, Reicher & Wetherell, 1987), we propose that attitudes, behavioral intentions, and behaviors themselves, become normative to the extent that they are context-specific defining features of membership in a psychologically salient self-inclusive social group. Behaviorally relevant norms produce behavior because the process of self-categorization in group terms constructs a context-specific ingroup prototype and assimilates the self-concept to the prototype. The self-concept is contextually transformed to become prototype-consistent, a process referred to as "depersonalization" (cf. referent informational influence; e.g., Abrams & Hogg, 1990; Hogg & Turner, 1987; Turner, 1982; Turner & Oakes, 1989). Thus, there should be a greater consistency between attitudes and behavior when there is normative support provided by a valued and contextually salient reference group for the attitudinal position.

Early research on the effects of reference group norms provides some evidence for their role in attitude-behavior relations. For example, Frideres, Warner and Albrecht (1971) showed that attitude-behavior consistency increased markedly under conditions where present others adopted an attitudinal position that was congruent with the attitude of the experimental participant. Relatedly, Schofield (1975) found that attitude-behavior consistency increased when participants were given information that the peer group was performing the behavior. Recently, Terry and Hogg (1996) found more specific support for the social identity analysis. Reference group norms (perceptions of approval by friends and peers at university for

performing the behaviors of regular exercise and sun protection) increased regular exercise behavior and strengthened sun-protective intentions among university students, but only those who identified more strongly as university students. Because Terry and Hogg's study was correlational, one impetus for the present research was to conduct an experimental study in which normative support and identity salience could be manipulated under controlled conditions.

The unique contribution of this paper is the application of a conceptualisation of norms from a social identity/self-categorization perspective to the study of attitude-behavior relations. From this perspective, social norms emanate from a specific salient reference group. The social identity/self-categorization perspective differs from previous research in that influential others are defined as members of a salient self-inclusive group with which the person identifies. Rather than conceptualising social norms as reflecting how some aggregate of other people is behaving or thinking at a given point in time, a social identity/self-categorization perspective emphasizes the importance of normative support from salient self-inclusive group memberships. In this respect, for norms to influence behavior they must be prescriptive (providing a template for how you, as a typical member, should think, feel and behave) rather than descriptive (e.g., most people who are important to me think that I should perform the behavior).

Thus, a social identity/self-categorization approach to the role of norms in attitude-behavior relations provides an explanation for when norms will influence attitude-behavior consistency; that is, when they emanate from a salient ingroup. The primary aim of this paper was to test a conceptualisation of the role of norms in attitude-behavior relations that was different from previous research, and empirically to expand on the correlational approach

conducted by Terry and Hogg (1996).

A second aim was to investigate the relationship between norms and correlates of attitude accessibility as regards their influence on attitude-behavior consistency. Fazio and his colleagues have suggested that attitude accessibility (i.e., attitude salience, cognitive availability) is a crucial influence on behavior (Fazio, Powell, & Herr, 1983; Fazio, 1986), and have provided evidence that repeated expression of an attitude (e.g., Powell & Fazio, 1984), direct experience with an attitude object (Fazio, Chen, McDonel, & Sherman, 1982), vested interest or involvement in an attitude domain (Sivacek & Crano (1982), and attitude confidence (indicative of chronic accessibility; Fazio & Zanna, 1978a), are all associated with greater attitude-behavior consistency (e.g., Fazio & Williams, 1986; Houston & Fazio, 1989; Fazio, Powell, & Williams, 1989).

From our social identity analysis, we would argue that identification with a salient ingroup may make available identity-consistent attitudes (i.e., ingroup prototypical attitudes), and thus that contextually-available group prototypical attitudes would be associated with greater attitude-behavior consistency. A social identity/self-categorization approach assumes that the impact of activating a group prototype goes beyond making an attitude accessible (or certain); it makes an attitude normative, providing the prescriptive power for a cognition to be reflected in action. Thus, activating a group prototype should influence behavior beyond simply making an attitude accessible or certain because: (a) there is a strong motivational basis to behave consistently with a group prototype as a consequence of people's need for both positive self-evaluation (self-esteem) and the reduction of uncertainty (see Hogg, 1996, in press), and (b) even if an attitude is made accessible or one is certain about the attitude, it is a relatively disembodied construct. A group prototype is a broader construct that embodies how

one should behave as well as how one should think. A group prototype can be viewed as a networked schema with associated nodes representing the feelings, thoughts, and actions of a typical group member. Even if accessible or certain attitudes do trigger group-relevant schemas, this process is one step removed from the immediate triggering of a specific group prototype. Thus, it was expected that: (a) both the correlates of attitude accessibility (attitude certainty and repeated expression) and ingroup norms would influence attitude-behavior consistency, and (b) the effects of the correlates of attitude accessibility on attitude-behavior relations would be independent of the effects due to ingroup norms (i.e., the effects of ingroup normative support on attitude-behavior consistency should not be a result of simply making an attitude more cognitively accessible or by using attitudes that participants hold with certainty).[1]

To investigate the social identity analysis of the role of norms in attitude-behavior consistency we conducted two closely related experiments, based on Fazio and colleagues' methodology (e.g., Fazio, 1986; Fazio, Powell, & Herr, 1983; Powell & Fazio, 1984), in which social identity (reference group) salience and normative support (ingroup vs. outgroup) were manipulated and correlates of attitude accessibility were either measured (attitude confidence, Experiment 1) or manipulated (repeated expression, Experiment 2).

Experiment 1

Experiment 1 focused on university students' attitudes towards, and behaviors related to, comprehensive university exams; an issue closely linked to the reference group, university students. Participants had their individuality or their university student identity rendered salient, and received normative information that either students from their own university shared their attitude whereas students from a rival university opposed their attitude, or the opposite. The ingroup/outgroup normative discontinuity was intended to accentuate reference

group salience for high salience participants. A number of measures of behavior and behavioral intention were taken. In addition, attitude confidence was measured, which has been shown to be a reliable correlate of attitude accessibility (e.g., Budd, 1986; Budd & Spencer, 1984; Fazio & Zanna, 1978a; cf. Fazio & Zanna, 1978b). On the basis of our social identity analysis we formulated three hypotheses.

We predicted that attitude-behavior consistency would be stronger among participants exposed to an attitude-congruent than attitude-incongruent ingroup norm (H1), and that this effect would be stronger for high salience participants (H2). We also predicted, that participants who held their attitudes with more certainty would behave more in accordance with their attitudes than those who held the attitudes with less certainty (H3). We did not expect to find any interactive effect of certainty with the two group variables of normative support and reference group salience on attitude-behavior relations.

Method

Participants and Design

Participants were 69 male and 91 female introductory psychology students enrolled at a large Australian university who participated in the study as a course requirement ($N = 160$). They were randomly assigned to conditions formed by the 2 x 2 manipulation of the independent variables of salience (low vs. high) and congruency of ingroup normative support (congruent vs. incongruent). The ratio of male to female participants was the same in each cell. A female experimenter conducted the study in 15-person sessions in which participants completed (a) an attitude questionnaire and (b) a self-description task, then (c) were given normative feedback, and finally (d) completed measures of behavioral intentions followed by (e) a final questionnaire checking on the norm and salience manipulations.

Procedure

The experiment was introduced as an investigation of people's attitudes and decision-making strategies. The experiment was conducted adhering to strict experimental procedures (e.g., participants were instructed not to communicate with each other, a mixture of experimental conditions were included within each experimental session, anonymity was ensured etc.). Low salience participants identified themselves on materials by first name, and were told that we were interested in individual differences in attitudes about current issues. High salience participants identified themselves by code number and their university name (University of Queensland; UQ) and were told we were interested in group differences between students from different universities. An initial questionnaire was administered to measure participants' attitudes about 12 current issues (e.g., greater police powers, legalizing marijuana) on bipolar 9-point scales (1 = oppose to 9 = support; half the items were reverse scored). The target issue was “comprehensive university examinations”, which was defined as a "general knowledge examination students would need to pass before graduation; a common practice at some US universities". It was expected that most students would oppose comprehensive examinations. This questionnaire also measured attitude certainty, by having participants indicate on 9-point bipolar scales for 3 of the 12 attitude issues (including the target issues), (a) how sure they were of their attitude, (b) how confident they were of their attitude, and (c) how much uncertainty they felt about their attitude. For the target issue, the three certainty items formed a single attitude certainty scale (α = .89).

Salience was then manipulated via a self-description procedure used by Hogg and colleagues (e.g., Hogg, Cooper-Shaw, & Holzworth, 1993; Hogg & Hains, 1996; Hogg & Hardie, 1991). Low salience participants were asked to describe themselves as an individual

person and to list attributes that made them unique as an individual person, whereas high salience participants were asked to describe themselves as a UQ student and to list similarities to other UQ students.

This task was followed by the manipulation of ingroup normative support, using a method broadly based on Reicher (1984). Participants studied bargraphs showing the percentage of opposition to three issues (including the target issue) from students at UQ (ingroup) and from students at a nearby rival university (outgroup). For participants in the ingroup normative support condition, the bargraphs indicated that students from their university (ingroup) overwhelmingly opposed the target issue, whereas students at the outgroup university supported the issue. In the outgroup normative support condition the opposite was the case. Students at the rival campus (outgroup) overwhelmingly opposed the issue, whereas students from their university (ingroup) supported the issue. In both conditions, the bargraphs indicated relatively equal opposition from students attending both universities for the two non-target issues. Participants studied the bargraphs carefully in order to answer some questions about the data presented. They had to indicate which students opposed the target issue (those from their university or from the rival university), and had to calculate the average percentage of opposition across the studies for the group of students who most opposed the target issue. These questions were designed to ensure full processing of ingroup normative information and clear identification of ingroup/outgroup differences.

In order to measure target attitude-related behavioral intentions, participants then completed a questionnaire assessing their willingness to engage in attitude-consistent or attitude-inconsistent behaviors. However, before completing the questionnaire, participants were first told that a group of students from their university had formed a group to oppose the

introduction of comprehensive university examinations and had prepared a form letter written to the government expressing opposition to the issue (cf. Sivacek & Crano, 1982). Participants were offered the opportunity to sign the form letter that was attached to the back page of the questionnaire. The questionnaire itself provided participants with an opportunity to rate their willingness to engage in behaviors related to the target attitude as well as the two non-target attitudes (i.e., self-report measures of behavior). Behaviors relating to the target attitude were carefully chosen to be specific and to be clearly associated with the relevant category (i.e., on-campus activities relating to university student affiliation). Participants indicated how willing they would be (1 = not at all willing to 7 = extremely willing) to: (a) distribute information leaflets from an on-campus organization that opposes comprehensive university examinations, (b) attend an on-campus seminar with a speaker who opposes comprehensive examinations, and (c) participate in an on-campus rally opposing comprehensive university examinations. These three items formed a single willingness scale (α = .83). Participants also indicated (yes or no) whether they would sign a petition opposing comprehensive university examinations if approached by a representative from a relevant on-campus group.

The final questionnaire before the experiment was concluded and participants were debriefed assessed the effectiveness of the two manipulations. Ingroup and outgroup normative support were checked. Participants rated how much they felt students from their university and students from the rival university opposed the target issue (1 = strongly support to 9 = strongly oppose). Reference group salience was checked by asking participants to indicate on 9-point scales (a) to what extent they felt they had responded as a UQ student (1 = not at all to 9 = a large extent), and (b) how aware of their identity as a UQ student they had been during the experiment (1 = very little to 9 = very much).

Results

In designing normative feedback we had assumed that students would generally be opposed to comprehensive examinations. Indeed, 49% (n = 80) were opposed, but 29% (n = 47) were in favor and 21% (n = 34) were undecided (i.e., scored on the scale midpoint). The ingroup normative support variable was thus scaled such that participants were classified as receiving either attitude-congruent or attitude-incongruent normative support from their ingroup[2]. Unfortunately it was not possible to determine the initial attitudinal inclination of the 34 "undecided" participants, and so they were excluded from subsequent analyses. Precautionary checks revealed that these participants were significantly less certain in their attitudinal response to the target issue (M = 4.86, based on an average of the attitude certainty items) compared to other participants (M = 6.15, $F(1, 158) = 14.60$, MSE = 27.49, $p < .001$, $\eta^2 = .09$). The final sample size was 126, with approximately equal sample sizes per cell and the same sex ratio within each cell.

Checks on Manipulations

The two salience manipulation check items (r = .72, $p < .001$) were summed to form a measure of ingroup salience. A two-way (Salience x Norm congruence) ANOVA on the salience measure confirmed the effectiveness of the salience manipulation. There was only a significant main effect for salience, $F(1, 122) = 8.06$, MSE = 14.62, $p < .01$, $\eta^2 = .06$. High salience participants (M = 8.05) believed their identity was more salient than low salience participants (M = 6.09).

There was also evidence for the effectiveness of the normative support manipulation. A two-way ANOVA (Salience x Norm congruence) performed on both the ingroup and outgroup normative support items revealed only significant main effects for normative support. For these

analyses participants were classified in terms of what normative information they originally received, and not the attitude-congruence of the norm. Participants who received ingroup normative support (M = 7.83) estimated that there was more opposition to the target issue from ingroup members than did participants who received outgroup normative support (M = 6.33), $F(1, 121) = 22.21$, MSE = 3.14, $p < .001$, $\eta^2 = .16$, and that there was less opposition to the issue from outgroup members (Ms = 5.15 and 7.61), $F(1, 120) = 48.35$, MSE = 3.87, $p < .001$, $\eta^2 = .29$.

Attitude-behavior Relations

As stated, the three items measuring willingness to engage in behaviors in accord with initial attitude (e.g., participate or not participate in an on-campus rally opposing comprehensive university examinations), were summed to form a behavioral willingness scale. Responses to the behavioral measure were recoded in terms of whether the response was attitudinally congruent (see Table 1 for the Ms, SDs, and intercorrelations among variables for the dependent measures in Experiment 1).

Insert Table 1 about here

To investigate the role of salience, norm congruency and attitude confidence on the dependent measures, a series of regression analyses were performed. A hierarchical linear regression analysis was conducted testing main and interactive effects for the three predictors of salience, norm congruency and attitude confidence on the behavioral willingness scale. Salience, norm congruency and attitude confidence were entered into the equation on the first step, with the 2-way interaction terms entered on the second step, and the 3-way interaction

term entered on the final step. To test for interactive effects, centered variables were used, calculated as deviations from the mean (Aiken & West, 1991), to ensure that mulitcollinearity between the predictors and interaction terms did not distort the results of the analysis. None of the steps were significant (all $\underline{F}s \leq 1.28$, $\underline{p}s > .05$, $\underline{R}^2ch < .04$) and, after all variables were entered into the equation, no significant predictors emerged (all $\underline{t}s \leq 1.91$, $\underline{p}s > .05$).

Inspection of responses to the two binary behavioral measures (signing a form letter and willingness to sign a petition) revealed that 68 (54%) of participants signed the form letter and 81 (64%) were willing to sign the petition. Logistic regression analyses were performed on these two binary outcome measures (again recoded in terms of whether the responses were attitudinally congruent) and the three predictors of salience, norm congruency and attitude confidence. Interactive terms were also tested for both analyses, tested separately on a second step (following the procedure outlined by Hosmer & Lemeshow, 1989). A test of the model with the three predictors on preparedness to sign a relevant petition was statistically reliable ($\chi^2\{3, \underline{N} = 126\} = 16.46$, $\underline{p} < .01$). According to the Wald criterion, both norm congruency ($\underline{B} = 2.46$, $\underline{SE} = 0.82$, $\underline{z} = 8.98$, $\underline{p} < .01$, Exp {B} = 11.72) and attitude confidence ($\underline{B} = 0.14$, $\underline{SE} = 0.06$, $\underline{z} = 5.32$, $\underline{p} < .05$, Exp {B} = 1.15) reliably predicted preparedness to sign a petition. As expected, participants who were exposed to a congruent rather than incongruent norm and those who reported more certainty in their attitude towards the target issue were more likely to behave consistently with their initial attitude for petition-signing. Entry of each 2nd step interaction term did not improve reliably the fit of the model (all $\chi^2 s \leq 0.18$, $\underline{p}s > .05$).

A test of the model with the three predictors on the form letter measure was not statistically reliable ($\chi^2\{3, \underline{N} = 126\} = 4.64$, $\underline{p} = .20$). According to the Wald criterion, however, there was a weak trend to suggest that norm congruency ($\underline{B} = 0.86$, $\underline{SE} = 0.47$, $\underline{z}$ =

3.40, p = .065, Exp {B} = 2.36) predicted signing of the form letter. As expected, participants who were exposed to a congruent rather than incongruent norm were more likely to behave in accordance with their original attitude. Entry of each 2nd step interaction term did not improve reliably the fit of the model (all χ^2s ≤1.03, ps > .05).

Discussion

Manipulation checks confirmed that both independent variables were successfully manipulated, though it should be noted that the absolute levels of salience were rather low in both high (M = 8.05 on a 18-point scale) and low salience conditions (M = 6.09).

Analyses revealed support for two of the three experimental hypotheses. Participants exposed to an attitude-congruent ingroup norm were more likely than participants exposed to an attitude-incongruent ingroup norm to behave in accordance with their initial attitude (H1). Participants exposed to an attitude-congruent norm showed more attitude-behavior consistency than participants exposed to an attitude-incongruent norm on the form letter and petition-signing measures. It should be noted that these measures are located towards the behavioral end of the behavioral measures employed in the study. It was also predicted that the effect under H1 would be accentuated among high salience participants (H2). This interaction was not significant.

H3 addressed the effect of attitude certainty (a correlate of attitude accessibility) on attitude-behavior consistency. Results revealed some evidence that participants reporting greater certainty in their attitudes were more likely to behave in accordance with their attitudes than those with less certain attitudes: participants who reported more certainty in their attitude towards comprehensive examinations showed greater attitude-behavior consistency for petition-signing than participants who reported less certainty in their attitude. This finding is

consistent with Fazio and colleagues' analysis of attitude accessibility correlates and attitude-behavior consistency (see Fazio, 1986; Fazio et al., 1983; Fazio et al., 1989), and the absence of any interactions involving attitude certainty and norm congruency is consistent with our expectations concerning the relative independence of individual attitude accessibility correlates and social identity processes.

Overall, Experiment 1 confirmed our general hypothesis that behavior should correspond more strongly with attitudes when there exists an attitude-congruent ingroup norm than an attitude-incongruent ingroup or attitude-congruent outgroup norm. However, the effect was not influenced by salience; it was not attenuated under low and accentuated under high salience conditions. Although the salience manipulation was effective as indicated by a significant effect for salience on measures checking salience it should be noted that the absolute levels of salience were low, hence any variation may have been relatively psychologically unimpactful. Also, although the issue of comprehensive university examinations should be very relevant to university student identity, it appears that our sample may not have been sufficiently well informed to recognise this link particularly strongly. In support of this point, attitude certainty for the issue of comprehensive exams was not particularly high ($\underline{M}$ = 6.15 on a composite scale of three 9-point items) and was significantly lower than attitude certainty for the other two attitude items for which certainty ratings were obtained; legalization of marijuana ($\underline{M}$ = 6.94), $\underline{F}(1, 125) = 13.76$, $\underline{MSE}$ = 25.44, $\underline{p} < .001$, η^2 = .10, and abortion on demand ($\underline{M}$ = 7.32), $\underline{F}(1, 125) = 27.68$, $\underline{MSE}$ = 27.88, $\underline{p} < .001$, $\eta^2 = .18$. Experiment 2 was designed to strengthen the attitude-identity link.

We found support for Fazio and colleagues' (see Fazio, 1986; Fazio et al., 1983; Fazio et al., 1989) view that correlates of attitude accessibility are associated with increased attitude-

behavior consistency, and our own view that accessibility and group membership processes might be relatively independent. However, the possibility exists that, because the correlate of accessibility was a measured, not manipulated, variable, the probability of obtaining interactions was inhibited; chronic accessibility may simply have been too strong relative to the experimentally manipulated variables. An aim of Experiment 2 was to re-address the role of attitude accessibility correlates, but this time as a manipulated variable.

Experiment 2

Experiment 2 was designed to be as closely based on Experiment 1 as permitted by the changes necessary to manipulate a correlate of attitude accessibility and to strengthen the salience manipulation. The target attitude was "separate bicycle lanes on roads" that was linked to gender identity. Under conditions of high or low gender salience, participants were exposed to attitude-congruent or attitude-incongruent ingroup normative support (contrasted with the outgroup norm). A correlate of attitude accessibility was manipulated by the method of “repeated expression”, that has been successfully used to strengthen the association between attitude and attitude object in memory (e.g., Downing, Judd, & Brauer, 1992; Powell & Fazio, 1984), and checked by a response latency method.

The experimental hypotheses matched the same three proposed for Experiment 1. We predicted that attitude-behavior consistency would be stronger among participants exposed to an attitude-congruent than attitude-incongruent ingroup norm (H1), and that this effect would be stronger for high salience participants (H2). We also predicted, that participants who repeatedly expressed their attitude towards the target issue would behave more in accordance with their attitudes than those who did not repeatedly express their attitude (H3). We did not expect to find any interactive effect of certainty with the two group variables of normative

support and reference group salience on attitude-behavior relations.

Method

Participants and Design

Participants were 76 male and 104 female introductory psychology students enrolled at a large Australian university who participated in the study as a course requirement (N = 180). They were randomly assigned to conditions formed by the 2 x 2 x 2 manipulation of the independent variables of salience (low vs. high), repeated expression (low vs. high), and congruence of ingroup normative support (congruent vs. incongruent). The ratio of male to female participants was the same in each cell. A female experimenter conducted the study in 15-person sessions in which participants completed (a) two attitude questionnaires and (b) a self-description task, then (c) were given two forms of normative feedback, and (d) completed measures of behavioral intentions followed by (e) checks on the norm and salience manipulations.

Procedure

The experiment was introduced as an investigation of people's attitudes and decision-making strategies. Low salience participants identified themselves on materials by first name, and were told that we were interested in individual differences in attitudes about current issues. High salience participants identified themselves by code number and their gender and were told we were interested in group differences between men and women.

In order to measure initial attitudes and to manipulate repeated expression we used Powell and Fazio's (1984) procedure. Participants completed a questionnaire in which 12 current issues (e.g. legalizing marijuana, greater police powers) were presented repeatedly in

carefully controlled patterns and frequencies to make a total of 30 item presentations. Each item presentation was rated on one of six 9-point semantic differentials: approve/disapprove, appropriate/inappropriate, good/bad, like/dislike, favorable/unfavorable, desirable/undesirable. We explained to participants that, although repetitive, each attitude prompt was linked to a unique adjective-pair, and was, therefore, providing a unique piece of information. High repeated expression participants rated the focal issue of “separate bicycle lanes on roads” six times, whereas low repeated expression participants did not rate this issue at all. We assumed that participants would generally be in favor of separate bicycle lanes. All participants then completed a second questionnaire in which they rated each of the 12 issues only once on bipolar 29-point scales (1 = oppose to 29 = support). These items served as our measure of baseline attitude and a measure to check the effects of repeated expression on extremity (see Downing et al., 1992). By the end of the second questionnaire, low repeated expression participants had rated the focal attitude only once whereas high repeated expression participants had rated it seven times.

The effectiveness of the repeated expression manipulation was confirmed via a pilot study on 6 men and 37 women (N = 43) from the same population as the experimental participants. Half the participants were administered the high repeated expression attitude questionnaire and half the low repeated expression version, and then, following Houston and Fazio's (1989) procedure, their response latencies (responding on a scale of 1 = strongly opposed to 5 = strongly in favor) were measured. To be comparable with the repeated expression manipulation in the main study, the initial questionnaires were slightly modified so that the latency task was the first (low repeated expression) or the seventh (high repeated expression) time they had seen the target attitude. One-way ANOVA on the latency scores for

the target issue revealed a significant effect for repeated expression, $\underline{F}(1, 41) = 8.23$, $\underline{MSE} = .76$, $\underline{p} < .01$, $\eta^2 = .17$. Participants in the high repeated expression condition responded significantly faster ($\underline{M} = 2.10$, $\underline{SD} = .74$ seconds) than participants in the low repeated expression condition ($\underline{M} = 2.86$, $\underline{SD} = .99$ seconds). Additional analyses on the full sample of experimental participants in the present study found that attitude extremity scores (deviation scores from the scale midpoint) did not differ significantly as a function of repeated expression (cf. Downing et al., 1992).

As in Experiment 1, participants then completed a self-description task designed to manipulate identity salience. Low salience participants were asked to describe themselves as an individual person and to list attributes that made them unique as an individual, whereas high salience participants were asked to describe themselves in terms of their gender and to list (non-biological) aspects of themselves they shared with other men or women in their peer group that made them different from members of the opposite sex. In addition to these questions and in order to strengthen the salience manipulation used in Study 1, low salience participants were also asked to list their strengths that made them unique as an individual person, whereas high salience participants listed the strengths of their own sex compared to members of the opposite sex. By asking high salience participants to focus on the strengths of their group, it was expected that this would not only heighten their ingroup salience, but also emphasize the positive characteristics of their group, rather than simply identifying inter-group differences.

This task was followed by a manipulation of normative support, designed to ensure full processing of ingroup normative information and clear identification of ingroup/outgroup differences. Participants studied statistics showing the percentage of support for three issues

(including the target issue) from both men and women. For participants in the ingroup normative support condition, the percentages indicated that members of their sex (ingroup) overwhelmingly supported the target issue, whereas members of the opposite sex (outgroup) opposed the issue. In the outgroup normative support condition the opposite was the case. Members of the opposite sex (outgroup) overwhelmingly supported the issue, whereas members of their sex (ingroup) opposed the issue. In both conditions, the statistics indicated relatively equal support from both sexes for the two non-target issues. Participants studied the statistics carefully in order to answer some questions about the data presented. They had to indicate which sex supported the target issue, and had to calculate the average percentage of support across the studies for the sex that most supported the target issue.

To further manipulate normative support, participants also studied three- or four-sentence statements ostensibly written by five men and five women about their attitude positions (e.g., “I would support it. What gets me so angry is when bikes have to try and fight their way in traffic, especially in peak hours. A friend of mine was nearly knocked over by someone going way too fast. I would welcome a separate lane – it might even encourage me to ride my bike more often.”). Participants in the ingroup normative support condition read four supportive and one ambivalent ingroup statement, and four oppositional and one ambivalent outgroup statement. The opposite pattern was provided for outgroup normative support participants. Order of presentation (ingroup or outgroup first) was counterbalanced across conditions, and participants had to integrate and summarize for ingroup and outgroup separately the opinions presented in the statements. Participants also had to indicate, with relevant comments, which of the two methods of presentation of attitude information (percentages vs. representative statements) they considered to be more effective.

To measure target attitude-related behavior, or behavioral intentions, participants next completed a questionnaire assessing their willingness to engage in attitude-consistent or attitude-inconsistent behaviors. However, before completing the questionnaire, participants were told their state transport department was interested in their attitudes towards the provision of separate bicycle lanes on roads, and that one aspect of the study was to provide the state government with this information. Participants were issued a ballot paper describing the proposal and providing the option to check yes or no. Participants were also given a second sheet where they rated their commitment to a local student union scheme to introduce a trial system of separate bicycle lanes on roads around the campus and in adjoining residential areas. They indicated how much of their time they would be willing to give to a committee co-ordinating the scheme (1 = no time to 6 = unlimited time).

The questionnaire itself provided participants with an opportunity to rate their willingness to engage in behaviors related to the target attitude as well as the two non-target attitudes (i.e. self-report measures of behavior). There were four questions for each of the three issues. For the target issue, participants indicated how willing they would be (1 = not at all willing to 9 = extremely willing) to: (a) accept a flier/handout from a group supporting separate bicycle lanes, (b) help distribute information leaflets for such a group, (c) attend an organized seminar with a speaker from such a group, and (d) take part in an organized rally supporting bicycle lanes. These four items produced a single index of willingness to engage in behavior supportive of bicycle lanes (α = .82). Participants also indicated (yes or no) whether, if approached by a relevant organization, they would be prepared to sign a petition supporting separate bicycle lanes.

As in Experiment 1, the final questionnaire before the experiment was concluded and

participants were debriefed assessed the effectiveness of the salience and normative congruency manipulations. Ingroup and outgroup normative support were checked by having participants rate how much they felt members of each sex supported the target issue (1 strongly support to 9 strongly oppose). Reference group salience was checked by asking participants to indicate on 9-point scales (a) to what extent they felt they had responded as a man or woman (1 = not at all to 9 = a large extent), and (b) how aware of their identity as a man or woman they had been during the experiment (1 = very little to 9 = very much).

Results

As in Experiment 1, the normative support variable was recast in terms of attitude-congruent and attitude-incongruent normative support from the ingroup. In order to do this, five participants (3 men, 2 women) whose initial attitudes were at the midpoint of the 29-point attitude scale were excluded, leaving 175 participants. A further eight participants (5 men, 3 women) were excluded because they identified themselves extremely strongly as members of a cyclist group (i.e., "9" on a 9-point cyclist scale that had been included as a screening device). The final sample size was 167 participants, with roughly the same sex ratio in each cell. Precautionary analyses incorporating sex of participant as a variable revealed that sex did not interact with any of the reported findings.

Checks on Manipulations

The two salience manipulation check items ($r = .62$, $p < .001$) were summed to form a measure of ingroup salience. A three-way, 2 (Salience) x 2 (Norm congruence) x 2 (Repeated expression) ANOVA on the salience measure confirmed the effectiveness of the salience manipulation. There was only a significant main effect for salience, $F(1, 154) = 6.03$, $MSE = 16.37$, $p < .05$, $\eta^2 = .04$. Participants in the high salience condition ($M = 9.04$) believed their

identity was more salient than participants in the low salience condition (M = 7.43).

Three-way ANOVAs on the items checking ingroup and outgroup normative support confirmed the effectiveness of the normative support manipulation. On both items there was only a significant main effect for normative support. As in Study 1, for these analyses participants were classified in terms of what normative information they originally received, and not the attitude-congruence of the norm. Participants who received ingroup normative support (M = 5.98) estimated that there was more support for the target issue from ingroup members than did participants who received outgroup normative support (M = 4.89), F(1, 158) = 7.38, MSE = 6.80, $p < .01$, $\eta^2 = .05$, and that there was less support for the issue from outgroup members (Ms = 5.22 and 6.28), F(1, 157) = 6.30, MSE = 7.36, $p < .05$, $\eta^2 = .04$.

Attitude-behavior Relations

A stated, the four items measuring willingness to engage in behaviors in accord with initial attitude (e.g., whether or not to attend a seminar organized by a group supporting separate bicycle lanes) were summed to form a behavioral willingness scale. A factor analysis of these items and the item measuring amount of time participants were willing to offer to implement a trial scheme of separate bicycle lanes indicated that there were 2 separate factors (the first factor comprising the willingness items and the second factor comprising the time offer item). Therefore, the willingness scale and the time offer measure were subjected to separate ANOVA analyses.

A three-way (Salience x Norm congruence x Repeated expression) ANOVA was conducted on the scale measuring willingness to engage in behaviors in accord with the initial attitude. As in Experiment 1, all responses to the behavioral measures were recoded in terms of whether the response was attitudinally congruent (see Table 2 for the Ms, SDs and

intercorrelations among measures for the dependent measures in Experiment 2). The results of the ANOVA indicated that there were no significant main or interactive effects (all Fs ≤ 3.69, ps > .05, η^2s ≤ .02).

Insert Table 2 about here

A second three-way (Salience x Norm congruence x Repeated expression) ANOVA was performed on the measure of amount of time participants were willing to offer to implement a trial scheme of separate bicycle lanes. The analysis revealed a significant interactive effect for the salience by norm congruence interaction, $F(1, 155) = 6.66$, MSE = 1.77, $p < .05$, $\eta^2 = .04$ (see Figure 1). Tests of simple effects revealed that participants exposed to norm congruent information were willing to behave more consistently with their initial attitude for amount of time willing to give to a committee under conditions of high (M = 2.05) than low salience (M = 1.46), $F(1, 155) = 3.95$, $p < .05$, $\eta^2 = .03$. Participants exposed to norm incongruent information did not differ significantly as a function of high versus low salience (Ms = 1.47 and 1.98), $F(1, 155) = 2.91$, $p > .05$, $\eta^2 = .02$. There was also a tendency for high salience participants to be willing to behave more consistently with their initial attitude for amount of time willing to offer after exposure to an attitude-congruent (M = 2.05) rather than an attitude-incongruent ingroup norm (M = 1.47), $F(1, 155) = 3.75$, $p = .055$, $\eta^2 = .02$. No other effects were significant (all Fs ≤ .87, ps > .05, η^2s ≤ .01) .

Insert Figure 1 about here

Inspection of responses to the two binary behavioral measures (the state transport ballot and willingness to sign a petition) revealed that 83% (n = 136) of participants voted in favor of the proposal and 87% (n = 144) were willing to sign a petition supporting bicycle lanes. Logit analyses were performed on these two binary measures (again recoded in terms of whether the responses were attitudinally congruent). Results of the tests of significance (partial association chi-square tests) yielded by the logit analyses revealed a significant main effect for normative congruence on willingness to sign a relevant petition, $\chi^2(1, N = 165) = 6.78$, $p < .01$, with more participants in the ingroup norm congruent (94%) than in the incongruent (81%) condition indicating that they would behave consistently with their initial attitudes (odds ratio = 3.67). There was also a significant main effect for repeated expression on willingness to sign a petition, $\chi^2(1, N = 165) = 8.87$, $p < .01$. More participants in the high (95%) than low (80%) repeated expression condition indicated that they would behave consistently with their initial attitudes (odds ratio = 4.75).

On the ballot measure, there was a weak main effect for normative congruence, $\chi^2(1, N = 164) = 3.26$, $p = .07$, with more participants in the norm congruent (90%) than in the norm incongruent (80%) condition voting consistently with their attitude (odds ratio = 2.25). There was also a significant main effect for repeated expression, $\chi^2(1, N = 164) = 6.22$, $p < .05$, with more participants in the high (90%) than in the low (80%) repeated expression condition voting consistently with their original attitude (odds ratio = 2.25).

Discussion

Manipulation checks confirmed that the three independent variables had been successfully manipulated. As in Experiment 1, it should be noted that the absolute levels of salience were relatively low, but were higher than the comparable items in the previous

experiment (in both low and high salience conditions).

Analyses revealed varying degrees of support for all three hypotheses. Participants exposed to an attitude-congruent ingroup norm were more likely than participants exposed to an incongruent norm to behave consistently with their initial attitude on the petition-signing measure and to vote in line with their attitude (H1). As predicted under H2, norm congruence interacted with salience such that it was high salience participants exposed to an attitude-congruent ingroup norm who expressed the greatest willingness to engage in attitude-consistent behavior. The prediction that participants who repeatedly expressed their attitude towards the target issue would behave more in accordance with their attitudes than those who did not repeatedly express their attitude (H3), was upheld on two measures of behavior (i.e., willingness to sign a petition supporting bicycle lanes and voting in a comparable manner in a state government {ostensibly} ballot). These results confirm Fazio and colleagues' (see Fazio, 1986; Fazio et al., 1983; Fazio et al., 1989) predictions about the role of correlates of attitude accessibility in attitude-behavior consistency. As in Experiment 1, the absence of norm congruency by repeated expression interactions confirms our expectation that individual attitude accessibility processes and group membership processes independently influence attitude-behavior relations.

General Discussion

Two experiments investigated the effects of normative support, reference group salience, and correlates of attitude accessibility on attitude-behavior consistency. The experiments used comparable paradigms and methodologies, but different reference groups (university students in Experiment 1, and gender in Experiment 2), different attitudes (comprehensive university examinations in Experiment 1, and separate bicycle lanes in

Experiment 2), and different operationalizations of reliable correlates of attitude accessibility (a measured variable in Experiment 1, a manipulated variable in Experiment 2). A similar set of three hypotheses was tested by both experiments.

The most robust finding (H1) was that participants were more likely to behave in accordance with their attitudes when they received normative support for, rather than opposition to, their original attitude from a relevant reference group (i.e., their ingroup, not an outgroup). This finding was replicated across the two experiments. In Experiment 2, where the manipulation of reference group salience was more successful than in Experiment 1, we also found that the effect under H1 was stronger under high than low salience conditions (H2). These findings are consistent with our social identity/self-categorization analysis of attitude-behavior relations. Although we are interested here in congruence between individual attitude and ingroup prescription, our design did not allow for a sound analysis of undecided participants who might prove interesting in terms of the influence of a salient ingroup. This question may prove fruitful for further research. Similarly, exposure to no ingroup or even neutral ingroup information is theoretically interesting and future research in this area should highlight the extent to which an ingroup needs to be supportive in order to be impactful on attitude-behavior consistency. Also, the impact of the extent to which the source of normative support is an ingroup rather than a social aggregate is another avenue for further research.

In both experiments, there was also support for Fazio's (see Fazio, 1986; Fazio et al., 1983; Fazio et al., 1989) prediction that greater attitude accessibility would be associated with stronger attitude-behavior correspondence (H3). The fact that in both studies the correlates of accessibility did not interact with reference group salience or normative support supports the possibility that social identity and cognitive accessibility processes may influence attitude-

behavior relations independently. Perhaps people do behave in accordance with their attitudes if those attitudes are accessible or held with certainty, but quite independently they may also bring their behavior in line with their attitudes (whether they are accessible or not) when there is normative support for their attitudes from a contextually salient ingroup. This finding differs from the approach offered by Gross, Holtz and Miller (1995) who argue that norms are a partial determinant of certainty, and therefore, the effects of norms and certainty should covary. Future research should examine in more depth the interplay between correlates of attitude accessibility and group norms on attitude-behavior relations. Although the present results suggest that the two processes operate independently, it is possible that exposure to an attitudinally-congruent ingroup norm impacts on attitude-behavior consistency by increasing the accessibility of attitudes in memory, and hence the likelihood that they will be acted upon in a given behavioral context.

Overall, the results of the two studies were consistent with expectations. There was, however, only weak support for the expectation that the effects of norm congruency would be moderated by group salience (H2). As noted previously, the failure to find stronger support for this prediction can be attributed to the fact that the salience manipulation could have been stronger. Although there was evidence in both studies that the manipulation was effective, levels of salience were not high, particularly in Experiment 1, where no moderating effects of group salience were observed. Nevertheless, the significant norm congruency by salience interaction observed in Experiment 2 is consistent with the social identity approach tested in the present research, and is consistent with results from two separate field studies reported by Terry and Hogg (1996) indicating that the effects of ingroup norms on behavioral outcomes were most marked for participants who identified strongly (as a measure of enduring salience

of group membership) with the relevant ingroup. In the experimental context, future research needs to develop stronger manipulations of group salience; clearly, a "self-description" task does not constitute a strong manipulation of this variable. Preliminary tasks that engender competition between groups (high salience) or individuals (low salience) may be useful in this regard.

Although the salience manipulation was not as strong as it could be, the present research had a number of other strengths. The fact that the experiments incorporated both measured (Experiment 1) and manipulated (Experiment 2) levels of the correlates of accessibility means that the lack of interactive effects involving certainty or repeated expression could not be attributed to a reliance on one operationalization of the correlates of attitude accessibility. In a similar vein, the use of the different group memberships and different target issues across the two studies means that the obtained results cannot be considered to be group- or target-specific. The present results are further strengthened by the fact that a range of different behavioral measures were used in each experiment. In both studies, these measures ranged from willingness or intention measures (typically employed in attitude-behavior research) to responses that constituted overt behavioral responses (such as voting in the ballot in Experiment 2).

The current findings have significance for the following applications. First, the improved correspondence between attitudes and behaviors upon exposure to supportive ingroup norms has applications for the design of programs where positive attitudes translate to desirable behavioral outcomes, such as programs in health-related areas (e.g., anti-smoking and safer sex campaigns). Providing a supportive normative climate linked explicitly to a clear reference group increases the likelihood that individuals will engage in attitude-consistent

behavior. Second, there was some evidence to suggest that enhancing the salience of a social category will increase category relevant attitude-behavior consistency. Reminding individuals of their group membership should increase category salience, thereby increasing the desired attitude-behavior consistency. For example, in fund-raising activities for an environmental cause, priming a generic social category (e.g., young professionals) and a relevant norm (e.g., young professional's support of environmental causes) should increase the likelihood of donations.

In conclusion, the findings of the present study can be considered to be important in that they provide clear evidence that exposure to an ingroup norm, particularly if the group membership is salient, does influence the strength of the attitude-behavior relationship. These results support the application of social identity and self-categorization theories to the study of attitude-behavior relations, and open the way for further research to take a more fine-grained look at the role that group membership and group norms play in this context.

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Author note

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Footnotes

[1]It should be noted that there is concern about the relatedness of the indicators of attitude strength with a number of researchers concluding that the various indicators may reflect differing underlying constructs (e.g., Abelson, 1988; Krosnick, Boninger, Chuang, Berent & Carnot, 1993; Raden, 1985; see also Petty & Krosnick, 1994). Despite this debate, there is some support for the measurement of attitude confidence as a reliable correlate of attitude accessibility (see e.g., Budd, 1986; Budd & Spencer, 1984; Fazio & Zanna, 1978a, 1978b; see also Gross, Holtz & Miller, 1994) and the effectiveness of the repeated expression technique as a manipulation of attitude accessibility (see e.g., Downing et al., 1992; Fazio et al., 1982; Powell & Fazio, 1984; Roese & Olsen, 1994; see also Judd & Brauer, 1994). In the present research, both attitude confidence (Study 1) and the repeated expression technique (Study 2) were used to examine the role of attitude accessibility.

[2]The own position (favor vs. oppose) and ingroup position (favor vs. oppose) variables were recoded to reflect “congruency of normative support” because of the small number of participants in Study 2 opposing the target issue, producing extremely uneven cell sizes for the own position variable.

Table 1

Experiment 1: Means, Standard Deviations, and Correlation Coefficients for all Dependent Measures

Dependent Measure	M (n=126)	SD	Pearson's Correlation Coefficient (r)					
			1	2	3	4	5	6
1. Salience Manipulation Check	7.04	3.92	-	-.12	-.03	.08	.18	.08
2. Ingroup Normative Support Manipulation Check	7.08	1.92		-	-.13	-.15	-.02	-.06
3. Outgroup Normative Support Manipulation Check	6.38	2.33			-	.00	.12	.17
4. Behavioral Willingness	13.90	4.57				-	.34***	.31***
5. Form Letter	1.79	.41					-	.48***
6. Petition	1.87	.33						-

Note. Correlations are partial correlations with manipulated independent variables partialled out. Two-tailed tests of significance were performed.

*** $p < .001$

Table 2

Experiment 2: Means, Standard Deviations, and Correlation Coefficients for all Dependent Measures

Dependent Measure	M (n=166)	SD	Pearson's Correlation Coefficient (r)						
			1	2	3	4	5	6	7
1. Salience Manipulation Check	8.24	4.14	-	-.03	-.04	-.01	.00	-.05	-.11
2. Ingroup Normative Support Manipulation Check	5.43	2.63		-	-.37***	-.17*	-.02	.10	.14
3. Outgroup Normative Support Manipulation Check	5.75	2.72			-	.13	-.02	.01	.06
4. Behavioral Willingness	16.07	6.11				-	.31***	.18***	.29***
5. Time Offer	1.76	1.33					-	.10	.12
6. Ballot	1.86	.35						-	.51***
7. Petition	1.87	.33							-

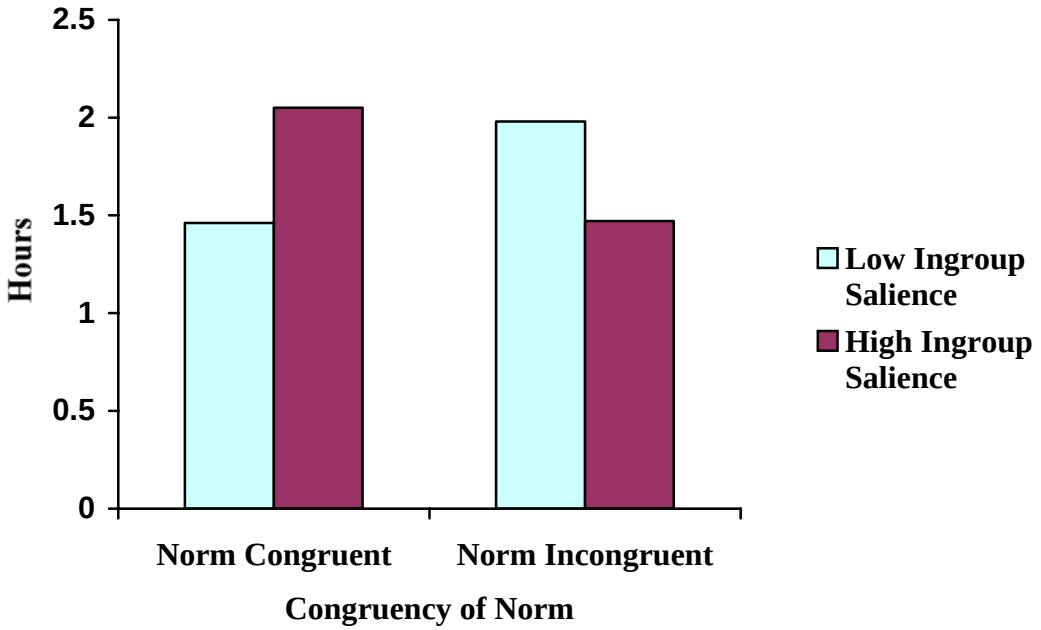
Note. Correlations are partial correlations with manipulated independent variables partialled out. Two-tailed tests of significance were performed.

*p < .05

*** p < .001

Figure caption

Figure 1. Effect of norm congruency and salience on attitude-behavior consistency on measure of hours willing to donate to a committee.


2.5
2
1.5
1
0.5
0
Hours
Norm Congruent
Norm Incongruent
Congruency of Norm
Low Ingroup Salience
High Ingroup Salience