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Group norms, attitude accessibility, and mode of behavioural decision-making

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Attitude-behaviour consistency: The role of group norms, attitude accessibility, and mode

of behavioural decision-making

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Abstract

The interplay between two perspectives that have recently been applied in the attitude area—the social identity approach to attitude-behaviour relations (Terry & Hogg, 1996) and the MODE model (Fazio, 1990a)—was examined in the present research. Two experimental studies were conducted to examine the role of group norms, group identification, attitude accessibility, and mode of behavioural decision-making in the attitude-behaviour relationship. In Study 1 (N = 211), the effects of norms and identification on attitude-behaviour consistency as a function of attitude accessibility and mood were investigated. Study 2 (N = 354) replicated and extended the first experiment by using time pressure to manipulate mode of behavioural decision-making. As expected, the effects of norm congruency varied as a function of identification and mode of behavioural decision-making. Under conditions assumed to promote deliberative processing (neutral mood/bw time pressure), high identifiers behaved in a manner consistent with the norm. No effects emerged under positive mood and high time pressure conditions. In Study 2, there was evidence that exposure to an attitudeincongruent norm resulted in attitude change only under low accessibility conditions. The results of these studies highlight the powerful role of group norms in directing individual behaviour and suggest limited support for the MODE model in this context.

Attitude-behaviour consistency: The role of group norms, attitude accessibility, and mode of behavioural decision-making

The study of social influence and, in particular, the impact of social norms upon behaviour has been a central theme in social psychological research. However, there has been little support for the role of normative factors in attitude-behaviour relations, a surprising phenomenon given that norms feature in the most prominent and wellresearched models in this field—the theories of reasoned action (Fishbein & Ajzen, 1975) and planned behaviour (e.g., Ajzen, 1985). A number of researchers have, however, begun to re-examine the role of social factors in this context (see Terry & Hogg, 2000, for a review). In particular, the social identity approach to attitude-behaviour relations (Terry & Hogg, 1996), an approach that has situated norms within a more elaborated social context, has provided support for the role of norms in the attitude-behaviour context. In the present paper, we report the results of two studies designed to extend previous research by examining the joint effects of normative factors—ingroup norms and ingroup identification—and cognitive factors—attitude accessibility and mode of behavioural decision making—on the attitude-behaviour relationship.

The Social Identity Approach to Attitude-Behaviour Relations

Traditionally, the study of social influence in attitude-behaviour relations has been conducted primarily from the perspective of the theories of reasoned action (Fishbein & Ajzen, 1975) and planned behaviour (Ajzen, 1985). However, in these theories, social influence is conceptualised as the extent of perceived pressure from significant others to perform the target behaviour (i.e., subjective norm). Such a conceptualisation suggests that norms are external prescriptions that influence behaviour and is inconsistent with the more widely accepted definition of norms as the accepted or implied rules of how group members should and do behave (e.g., Turner, 1991). Thus, norms may have a stronger

impact upon the attitude-behaviour relationship if they are tied more closely to contextually salient group memberships in the immediate social context—an approach that is in line with social identity (Tajfel & Turner, 1979) and self-categorization theory (Turner, Hogg, Oakes, Reicher, & Wetherell, 1987).

According to the social identity approach, the norms of salient social groups should influence willingness to engage in attitude-consistent behaviour because the process of psychologically belonging to a group means that, through the process of assimilation to the ingroup prototype, self-perceptions, beliefs, attitudes, and behaviour are brought into line with the position advocated by the ingroup norm, particularly if the group membership is a salient basis for self-definition. Thus, according to the social identity approach, people are influenced by ingroup norms not simply because they lead to social approval in a public context, but because they prescribe the context-specific attitudes and behaviours appropriate for group members.

Previous research has provided some support for the proposed reconceptualsation of the role of norms in attitude-behaviour relations. In two tests of the theory of planned behaviour, Terry and Hogg (1996) found that he perceived norms of a specific and behaviourally relevant reference group were related to students' intentions to engage in health behaviours, but only for students who identified strongly with the group. More direct support for the proposed reconceptualisation of the role of norms in attitudebehaviour relations has been obtained in a series of recent experimental studies. In a study examining university students' attitudes towards being responsible for picking up campus litter, Wellen, Hogg, and Terry (1998) found that attitude-behaviour consistency was stronger when participants were exposed to an attitudinally-congruent ingroup norm, but only when the salience of group membership was experimentally heightened. Furthermore, in two experimental studies conducted by Terry, Hogg, and McKimmie (2000), the effects of norm congruency were most marked for individuals for whom the group was a salient basis for self-definition (i.e., high identifiers).

Thus, there is evidence for the view that ingroup norms do influence the attitudebehaviour relationship, and that these effects are moderated by the salience of the group membership from which the norms emanate. However, in addition to examining the role of norms in attitude-behaviour relations, researchers have begun to examine the interplay between social identity and social cognitive variables, such as those outlined in Fazio's (1990a) MODE model, in attitude-behaviour relations. In two independent lines of research, Terry, Hogg, and colleagues (e.g, Terry et al., 2000; Wellen et al., 1998; White, Terry, & Hogg, 2002) have examined the roles of attitude accessibility and mode of behavioural decision-making in the attitude-behaviour context.

Attitude Accessibility and the Attitude-Behaviour Relationship

According to Fazio and colleagues (e.g, Fazio, 1986; Fazio & Williams, 1986), the accessibility of an attitude, or the salience of an attitude in memory, determines whether an individual's behaviour is in line with their attitude. In this framework, an automatically activated attitude serves as a filter leading to attitudinally-biased processing of the situation, prompting behaviour that is consistent with the attitude. Research by Fazio and his colleagues (e.g, Fazio, 1986; Fazio & Williams, 1986; Houston & Fazio, 1989) has demonstrated that, irrespective of whether attitude accessibility is experimentally manipulated or chronic attitude accessibility is assessed, the more accessible the attitude is, the greater the likelihood that the attitude will influence behaviour.

On this basis, it might be argued that by making group norms salient, the relevant attitude becomes accessible and it is this accessible attitude, not the group norm, which directs behaviour. However, the social identity approach assumes that, although exposure to the norm may make the corresponding attitude accessible, there are strong motivational reasons why group members would want to behave in accord with their normatively supported and accessible attitudes. That is, activating a group norm should influence behaviour beyond simply making an attitude accessible. This is because behaving in accordance with a normative attitude validates the person's status as a group member and serves to reduce uncertainty in terms of the appropriateness of the attitude and behaviour. Thus, according to the social identity approach, although both attitude accessibility and norms should influence attitude-behaviour consistency, the effects of the two variables should be independent.

A series of experiments was conducted to test whether the effects of norms on attitude-behaviour relations were independent of the effects of attitude accessibility (White et al., 2002). Across the two experiments, attitude accessibility was associated with stronger attitude-behaviour consistency, a finding consistent with the work of Fazio (1986). However, independent of the influence of attitude accessibility, information about group norms had significant and stronger effects on behaviour. Thus, people do appear to behave in accordance with their attitudes if those attitudes are cognitively accessible, but quite independently, and to a stronger degree, they also bring their behaviour in line with their attitudes when there is normative support for these attitudes.

Mode of Behavioural Decision-Making and the Attitude-Behaviour Relationship

In his MODE model (*M*otivation and *O*pportunity as *DE*terminants of mode of behavioural decision-making), Fazio (1990a) distinguished two different processes through which attitudes can guide behaviour—a spontaneous process or a deliberative process. Under conditions of low motivation and ability, links between attitudes and behaviour arise as the result of spontaneous processing and are driven by the cognitive accessibility of the attitude (Fazio, 1986; 1990a). Under deliberative processing (i.e.,

high motivation/high ability), however, behavioural decisions are made in accord with the mechanisms that underpin the theories of reasoned action/planned behaviour—namely as a consequence of careful consideration of all available information, including norms. Thus, according to the MODE model, normative factors should influence attitude-behaviour consistency most strongly under deliberative processing conditions.

In contrast, on the basis of the social identity approach, ingroup norms should influence attitude-behaviour relations, irrespective of mode of behavioural decisionmaking. That is, under both processing conditions, the process of assimilation to the group prototype means that the group norms of a behaviourally relevant and contextually salient ingroup should become a central and important guide to behavioural responses, an effect that should be most marked for those who identify strongly with the group. However, it could be argued that because high identifiers are motivated to consider carefully self-relevant group norms (seee.g., Forgas & Fiedler, 1996), the effect of norms should be most marked for these individuals when conditions allow the systematic consideration of normative information (i.e, deliberative decision-making). When conditions restrict the opportunity for deliberative processing, high identifiers may be impeded in both their motivation and ability to process information in the preferred manner, which means that normative information may be largely ignored.

In addition to the studies examining the role of attitude accessibility, Terry, Hogg, and colleagues (Terry et al., 2000; Wellen et al., 1998) have also examined the role of mode of behavioural decision-making in group-mediated attitude-behaviour consistency. The results to date, however, have been equivocal. In a study that varied mood to manipulate mode of behavioural decision-making (see Bless, Bohner, Schwarz, & Strack, 1990), Wellen et al. (1998) found that, underconditions assumed to favour deliberative processing (i.e., neutral mood), the effects of norms were most marked for individuals for whom the group was a salient basis for self-definition. However, two studies by Terry et al. (2000) failed to find evidence that the effects of norms varied as a function of mode of behavioural decision-making when either a motivation-based or an ability-based manipulation of mode of behavioural decision-making was employed.

The Present Research

In sum, previous research has examined the interplay of social identity variables with either attitude accessibility or mode of behavioural decision-making. Although the results for attitude accessibility are promising with respect to the interplay among the variables, the results with respect to mode of behavioural decision-making have been contradictory. Moreover, it is important to note that previous research has examined the effects of attitude accessibility and mode of behavioural decision-making in independent strands of research, despite the fact that the MODE model (Fazio, 1990a) specifies that both attitude accessibility and mode of behavioural decision-making interact to influence the attitude-behaviour relationship. Indeed, no research exists to date that examines the interplay among the processes outlined in the MODE model (Fazio, 1990a) and the social identity approach to attitude-behaviour relations (e.g., Terry & Hogg, 1996). Thus, the present research was designed to address this gap in existing research and provide a more integrative account of the roles of the MODE model and the social identity approach in attitude-behaviour relations by examining the effects of both normative (norms and identification) and cognitive (attitude accessibility and mode of behavioural decisionmaking) factors on attitude-behaviour consistency.

Two experiments were conducted to examine the effects of normative and cognitive factors on attitude-behaviour consistency. In both experiments, attitude accessibility, mode of behavioural decision-making, and level of normative support were orthogonally manipulated, whereas strength of group identification was assessed. In the

first experiment, a manipulation of mood was used to vary mode of behavioural decisionmaking. This manipulation was used because mood is thought to have both motivational (e.g., Schwarz, 1990) and ability (Mackie & Worth, 1989) implications for mode of processing. Specifically, positive mood has been found to decrease the likelihood that an individual will engage in deliberative processing, relative to negative or neutral mood conditions (e.g., Bless et al., 1990; Mackie & Worth, 1989). In addition, Forgas and Fiedler (1996) found that participants in a positive mood took less time to make their decision, providing more direct evidence for the proposed effects of mood on mode of processing. In the second experiment, an ability-based manipulation (time pressure) was used to vary mode of behavioural decision-making. The experience of time pressure is assumed to reduce the opportunity for systematic and deliberative processing, and it has been employed for this reason in past research on the MODE model (e.g., Sanbonmatsu & Fazio, 1990).

Study 1

Study 1 was a study of attitudes towards the introduction of voluntary student unionism. On the basis of the social identity approach, it was expected that participants exposed to an attitude-congruent norm would display greater attitude-behaviour consistency than participants exposed to an attitude-incongruent norm (H1). Overall, this effect was expected to be stronger for high group identifiers than low identifiers (H2), particularly under conditions assumed to promote deliberative processing—that is, neutral mood (H3). In accord with Fazio's (1990a) MODE model, it was expected that participants whose attitudes were highly accessible would show greater attitude-behaviour consistency than those whose attitudes were not accessible, an effect that should be stronger under spontaneous decision-making conditions (H4).

Method

Participants and Design

Participants were 144 female and 67 male (N = 211) introductory psychology students enrolled at the University of Queensland, who participated in the study for course credit. The study employed a 2 (low attitude accessibility, high attitude accessibility) x 2 (attitude-congruent norm, attitude-incongruent norm) x 2 (positive mood, neutral mood) between-subjects design. Strength of identification with the group was assessed one week prior to the main study. The introduction of voluntary student unionism served as the focal issue. Participants, randomly assigned to conditions, were run in groups of between 6 and 16. A female experimenter conducted all sessions. *Procedure*

Pre-experimental measures. The study was introduced as an investigation of students' attitudes towards current issues. One week prior to the main study, participants completed the first questionnaire which, in addition to obtaining demographic information, contained six items, based on those used by Hogg, Cooper-Shaw, and Holzworth (1993), designed to assess strength of enduring identification as a university student (e.g., "How much do you feel yourself as belonging to the group of people who study at this university?" 1 *not at all*, 9 *very much*). Principal components analysis revealed that a single factor solution accounted for a large proportion of the variance in the data (47%). Items were combined to form a measure of group identification ($\alpha = .75$).

Experimental manipulations. Attitude accessibility was manipulated using a computerised version of the repeated expression technique (Powell & Fazio, 1984), in which repeated expression is assumed to heighten the accessibility of the target attitude relative to a no expression condition. Upon arrival at the experimental session, participants were instructed to sit at a computer terminal. Five keys on each computer

were labelled with a Likert-type scale ranging from *strongly disagree* to *strongly agree*. Participants were instructed to respond to eachattitudinal issue by pressing the labelled key that corresponded to the extent of their agreement with that statement. In accordance with Fazio's (1990b) recommendation, participants were asked to maximise both the speed and accuracy of their responses.

Twelve contemporary attitude issues were selected for use in the test phase, one of which was the target issue. Other issues included the introduction of upfront fees for university, student concessions on buses, and Australia as a republic. Participants in the high accessibility condition expressed their attitude to the target issue of "Introducing voluntary student unionism" a total of six times (three followed by the word "good" and three followed by the word "bad"). In the low accessibility condition, the target issue did not appear in the test phase, and was replaced by the issue "Decriminalising marijuana". The order of trials in the test phase was randomised for each participant.

The format of the manipulation check was identical to the one used in the test phase. However, each of the trials in this phase was followed by the word "good" to counter any effects associated with a negatively phrased response. All participants responded to the statement "Introducing voluntary student unionism: Good?" and eleven other filler issues, none of which had appeared previously in the test phase. For the high accessibility participants, this was the seventh time they had expressed their attitude towards the target issue. However, it was the first time that participants in the low accessibility condition had been given the opportunity to express their attitude towards the target issue. Within the manipulation check trials, order of presentation was randomised. Latency of response, from presentation of statement to response, was recorded in milliseconds. To manipulate *normative support*, participants studied and summarised a series of five representative statements--ostensibly from first year students who had participated in similar research in previous semesters--that indicated that the ingroup either strongly supported or strongly opposed the introduction of voluntary student unionism. Participants in the attitude-congruent norm condition were exposed to four statements that suggested that the ingroup supported their position on the target issue and one statement that opposed their position. This pattern was reversed for participants in the attitudeincongruent norm condition. Five versions of each set of normative information were generated to control for order effects.

A video segment was used to induce either a positive or neutral mood (assumed to correspond with differences in mode of behavioural decision-making). This manipulation of mood was found to be effective in the study by Wellen et al. (1998) and was adopted for use in the present study. Participants watched a 5-minute video segment from either a popular comedy series, the positive mood condition, or from a documentary, the neutral mood condition. As a check on the effectiveness of the mood manipulation, participants rated their current mood on three 9-point semantic differential scales (*happy-unhappy*, *bad-good*, *pleasant-unpleasant*). The three items were combined to form a measure of mood ($\alpha = .93$).

Post-manipulation measures. The final questionnaire assessed participants' willingness to engage in behaviours related to voluntary student unionism. These behaviours included willingness to take a flier from a group that opposed voluntary student unionism, distribute leaflets from a group that opposed voluntary student unionism, and attend a rally opposing voluntary student unionism (1 *not at all willing*, 9 *extremely willing*). Each willingness item was recoded to reflect the extent of attitude-behaviour consistency to 9 (*strong*)

attitude-behaviour consistency), depending on whether participants supported or opposed the introduction of voluntary student unionism at the outset of the study. That is, if participants supported the introduction of voluntary student unionism, their responses were reverse scored. However, if participants opposed the introduction of voluntary student unionism, their responses were not reversed. As a result, high scores indicated strong attitude-behaviour consistency for all participants. The rescored willingness items were combined to form a composite measure of willingness to engage in attitude-consistent behaviour ($\alpha = .79$).

Participants also completed an item that served as a measure of the magnitude of participants' willingness to volunteer time (i.e. *none*, *1 hour*, *5 hours*, *10 hours*, *20 hours*, *unlimited*) to a committee aimed at opposing voluntary student unionism. Participants were told that the student union was interested in obtaining student opinion on this issue and had asked the researchers to include this measure in the study. Responses to this item were significantly skewed and the itemwas recoded to form a binary measure of volunteering behaviour (1 *did not volunteer time*, 2 *volunteered any time*). This item was then recoded in terms of whether their behaviour was inconsistent with (rated as 1) or consistent with (rated as 2) their initial attitude toward voluntary student unionism. This reverse scoring of responses was consistent with the scoring of the willingness responses.

Finally, in order to assess the efficacy of the normative condition manipulation, participants rated the extent of the similarity between their attitude towards voluntary student unionism and the general attitude among first year students (1 *extremely similar*, 9 *not at all similar*). At the conclusion of the study, participants were fully debriefed.

Results

Preliminary Analyses

Preliminary checks revealed no differences among cells in initial attitude toward the target issue. No significant main or interactive effects involving initial attitude position emerged—hence initial attitude was excluded from subsequent analyses.

Participants who expressed a neutral attitude towards the target issue on the initial assessment of attitude could not be assigned to either normative condition and were excluded from the main analyses, leaving a final sample size of 194 (135 females and 59 males).

Manipulation Checks

Attitude accessibility. Logarithmic transformation of the response latencies was performed prior to analysis (see Fazio, 1990b). Inter-item correlations among the response latencies were minimal (average r = .13, cf. Fazio & Williams, 1986; Houston & Fazio, 1989); thus, no adjustment was made to account for differences in general speed of responding. A 2 (accessibility) x 2 (mood) x 2 (identification) between-groups ANOVA revealed a significant main effect for attitude accessibility only, F(1, 198) = 4.31, p < .05, $\eta^2 = .02$. Participants in the high accessibility condition had faster response latencies to the target issue (M = 4718.25) than participants in the low accessibility condition (M = 5467.56).

Mood. On the composite score for mood, analysis revealed a significant main effect for the mood manipulation only, F(1, 203) = 33.85, p < .001, $\eta^2 = .14$. Individuals in the positive mood condition rated their current mood as significantly more positive (M = 7.26) than did individuals in the neutral mood condition (M = 6.08).

Norm congruency. On the measure of participants' perceived similarity between their attitude and the group norm, analysis revealed a significant main effect for norm

congruency only, F(1, 176) = 17.36, p < .001, $\eta^2 = .08$. Participants in the attitudecongruent norm condition perceived greater similarity between their attitude and the group norm (M = 7.61) than did participants in the attitude-incongruent norm condition (M = 5.32).

Identification. The overall mean on the identification scale was 5.74 on the 9point scale. For the purpose of analysis, participants were classified as high or low identifiers on the basis of a median split (Ms = 6.89 and 4.60, respectively). *Effects of Attitude Accessibility, Mood, Norm Congruency and Identification*

Attitude-behaviour consistency was analysed using a series of 2 (attitude accessibility) x 2 (mood) x 2 (norm congruency) x 2 (identification) analyses of variance. On the measure of willingness to display attitude-consistent behaviour, the analysis revealed a main effect for norm congruency only, $F(1, 178) = 21.48, p < .001, \eta^2 = .10$. As expected, participants exposed to an attitude-congruent norm displayed greater willingness to display attitude-consistent behaviour than participants exposed to an attitude-incongruent norm (Ms = 6.93 and 5.58, respectively).

Responses to the measure of time volunteered to oppose the introduction of voluntary student unionism were analysed in an analysis of variance.¹ Analysis revealed a main effect for norm congruency, F(1, 174) = 5.02, p < .05, $\eta^2 = .02$. As expected, exposure to an attitude-congruent norm was associated with greater attitude-consistent behaviour than exposure to an attitude-incongruent norm (Ms = 1.80 & 1.66, respectively). In addition, a main effect for identification emerged, F(1, 174) = 5.39, p < .05, $\eta^2 = .03$, such that low identifiers displayed greater consistency (M = 1.80) than high identifiers (M = 1.66). However, these effects were qualified by a significant Mood x Norm Congruency x Identification interaction, F(1, 174) = 6.12, p < .02, $\eta^2 = .03$ (see

Figure 1). Examination of the NormCongruency x Identification interaction under positive and neutral mood conditions separately revealed a significant interaction under neutral mood conditions only, F(1, 174) = 5.35, p < .05, $\eta^2 = .03$. Further analysis revealed a significant main effect for norm congruency for high identifiers only, F(1, 174) = 7.08, p < .02, $\eta^2 = .03$. Thus, norms had the greatest impact for high identifiers under neutral mood conditions.

Figure 1 around here

Discussion

As predicted, attitude-behaviour consistency was influenced by the extent of ingroup support for that attitude--exposure to a norm that was attitude congruent was associated with greater consistency than exposure to an attitude-incongruent norm. In addition, there was some support for the proposed interplay among mode of behavioural decision-making, norm congruency, and identification. However, contrary to the predictions derived from Fazio's (1990a) MODE model, there was no evidence to suggest that greater attitude-behaviour consistency was associated with higher levels of attitude accessibility, or that the effects of attitude accessibility varied as a function of mode of behavioural decision-making.

In support of the central hypothesis, participants' behavioural responses were influenced by the attitudinal congruence of the norm. Individuals were more likely to behave in accordance with their attitudes when exposed to an attitude-congruent norm than when exposed to an attitude-incongruent norm, a finding that emerged on both dependent measures. Thus, in line with the social identity approach, exposure to attitudecongruent norms from a contextually salient ingroup does appear to strengthen the attitude-behaviour relationship, presumably because such norms validate the appropriateness of attitude-consistent behaviour for group members.

As expected, there was some evidence that the effects of norm congruency and identification on attitude-behaviour consistency varied as a function of mode of behavioural decision-making. On the measure of volunteering behaviour, under conditions assumed to favour deliberative processing (i.e., neutral mood), the attitudinal congruency of the ingroup norm had a greater impact on the attitude-behaviour consistency of high identifiers than low identifiers. Under positive mood conditions, the effect for the attitude congruency of the norm emerged, but did not vary with identification with the group. Hence, it is likely that, when individuals for whom the group is a salient basis for self-definition are exposed to the norm, they become motivated to consider the norm carefully and are provided with the opportunity to do so only when conditions favour deliberative processing (e.g., neutral mood). Under these circumstances, the realisation that their attitude is inconsistent with the views of the group should motivate high identifiers to bring their behaviour into line with the position represented by the norm

Contrary to the predictions derived from the MODE model (Fazio, 1990a), there was no evidence that attitude accessibility influenced behaviour, or that the effects of attitude accessibility were stronger when conditions favoured spontaneous processing (i.e., positive mood). Such results are also inconsistent with previous research on this model (e.g., Sanbonmatsu & Fazio, 1990; Schuette & Fazio, 1995). It should be noted that previous tests of the MODE model have focused on the role that attitude accessibility and mode of decision-making play in determining the extent b which attitude-related information is processed in a biased manner (Schuette & Fazio, 1995), or is retrieved and considered in the formation of attitude-related judgements (Sanbonmatsu &Fazio, 1990).

However, the role of attitude accessibility and mode of decision-making in the attitudebehaviour relationship has not been tested extensively. The results of this first study, in which attitude accessibility, norms, and mode of decision-making were manipulated simultaneously within the context of attitude-behaviour relations, suggest that the MODE model may have limited utility in this context. However, given that previous tests have found support for the model on the cognitive aspects that surround attitude-behaviour consistency (e.g., biased processing), use of such an outcome measure may provide a better test of the MODE model. Specifically, it is possible that while normative factors take precedence in determining behaviour, attitude accessibility may play an important role in relation to attitude change and stability. In order to determine if this was the case, the second study included a measure of attitude consistency as an additional outcome measure.

Although the present study provided some evidence to support the social identity approach to the potential influence of mode of decision-making in attitude-behaviour relations, it had several limitations. First, the key interaction--Norm x Identification x Mood--emerged on only one dependent variable: time volunteered to oppose voluntary student unionism. Moreover, given that this interplay has emerged only in studies that have used mood-induced differences in mode of decision-making (see also Wellen et al., 1998), it remains to be seen whether this effect can be replicated when alternative means of inducing different modes of behavioural decision-making are used (cf. Terry et al., 2000). In addition, previous tests of the MODE model have typically used ability-based manipulations of mode of behavioural decision-making, thus the use of this type of manipulation may provide a more comprehensive test of the respective roles of attitude accessibility and norms in attitude-behaviour relations. Thus, Study 2 was a conceptual replication of the first study but with an ability-based, rather than a mood-based manipulation of mode of behavioural decision-making. Specifically, time pressure was used to induce differences in mode of behavioural decision-making. Although there is no direct evidence to suggest that differences in time pressure are associated with differences in mode of behavioural decision-making, the hypothesised effects of this variable (as a manipulation of mode of decision-making) have been observed in past research on the MODE model (Sanbonmatsu & Fazio, 1990), and, on this basis, was employed in the present research.

Study 2

As in Study 1, Study 2 investigated attitudes towards the introduction of voluntary student unionism. The predictions were identical to those for Study 1. Specifically, we predicted that the provision of an attitude-congruent norm would be associated with greater attitude-behaviour and attitude consistency (H1), an effect that was expected to be stronger for the high identifiers (H2) who made their behavioural decisions under conditions assumed to promote deliberative decision-making—that is, low time pressure (H3). Finally, it was expected that greater attitude accessibility would be associated with greater attitude-behaviour and attitude consistency, an effect that would be accentuated under high time pressure conditions (H4).

Method

Participants and Design

Participants were 109 male and 240 female (N = 354) University of Queensland students recruited from the introductory psychology participant pool. None of the participants had participated in the first study. The study employed a 2 (accessibility: low/high) x 2 (time pressure: low/high) x 2 (norm: attitude-congruent/attitude-incongruent) x 2 (identification: low/high) between-subjects design. Participants,

Group norms, attitude accessibility, and mode of behavioural decision-making randomly assigned to conditions, were run in groups of between4 and 8. All sessions were conducted by a male experimenter.

Procedure

Upon arrival at the experimental session, participants were instructed to sit at a computer terminal. Attitude accessibility was manipulated first via a computerised version of the repeated expression technique (Powell & Fazio, 1984). The format of this manipulation was identical to that described in Study 1. However, due to time constraints, only five filler issues were used in Study 2 as opposed to the eleven filler issues used in the first study.

In Study 2, participants were all exposed to information that suggested that the group opposed the introduction of voluntary student unionism. This normative information was introduced in two different ways. First, participants studied a series of bargraphs—ostensibly the results of three recent studies on student opinion. To further manipulate normative support, participants studied and summarised a series of representative statements—these statements were identical to those used in Study 1. Participants were classified as having received either an attitude-congruent or attitude-incongruent norm at the conclusion of the study. Participants were categorised into the attitude-congruent condition if their initial attitude was opposed to voluntary student unionism. Participants who indicated at the start of the study that they supported voluntary student unionism were classified as having received an attitude-incongruent norm.

The manipulation of time pressure was concurrent with the manipulation of normative support. Participants in the low time pressure condition were given five minutes to view the material (bargraphs and statements). Participants in the high time pressure condition were given only 50 seconds to view the material. Next, participants were given the opportunity to engage overtly in attitude-related behaviour via a ballot. Participants were told that the university student union was interested in gauging student opinion on the issue of voluntary student unionism and were issued with a coloured ballot paper that required them to respond to the statement "There should be voluntary student unionism at this university" by crossing a box marked "yes" or "no". Participants completed this ballot and then placed their responses in asealed box. Responses to this item were recoded to reflect levels of attitude-behaviour consistency (1 *weak attitude-behaviour consistency, 2 strong attitude-behaviour consistency*).

Participants then completed the final questionnaire assessing willingness to engage in behaviours related to the introduction of voluntary student unionism. Participants recorded on a 9-point scale how willing they would be to: (1) take a flier from a group that supported the introduction of VSU, (2) distribute information leaflets from a group that supported the introduction of VSU, (3) attend a rally supporting the introduction of VSU, (4) vote to support the introduction of VSU if there was a university referendum on the issue, and (5) sign a petition supporting the introduction of VSU (1 *not at all willing*, 9 *extremely willing*). Each willingness item was recoded to reflect the extent of attitude-behaviour consistency ranging from 1 (*weak attitude-behaviour consistency*) to 9 (*strong attitude-behaviour consistency*). Principal components analysis revealed a single factor solution accounting for 76% of the variance in willingness and responses to the five items were combined to form a single willingness scale ($\alpha = .92$).

Attitudes were reassessed on the final questonnaire--participants were required to indicate the extent of their support for the statement "Introducing voluntary student unionism" (1 *strongly oppose*, 6 *strongly support*). Responses to this item were then recoded to reflect levels of pre- and post-test attitude consistency.

Level of identification as a university student was assessed via a 10-item scale (e.g., "How much do you feel yourself as belonging to the group of people who study at this university?" 1 *not at all*, 9 *very much*). Factor analysis via principal components revealed a single factor that accounted for 53% of the variance in identification. Items were then combined to form a composite measure of ingroup identification ($\alpha = .87$). A median split was used to categorise participants into low and high identifiers.

Checks on the normative support and time pressure manipulations were included on the final questionnaire. The manipulation check on the normative support manipulation was identical to the check used in Study 1. To check the time pressure manipulation, participants completed two items that assessed, on a 9-point scale, whether they experienced time pressure (e.g., "I felt I had enough time to view the normative information" and "I was able to form an accurate picture of student opinion on the target issue" 1 *not at all*, 9 *very much*). Lower scores were assumed to reflect greater time pressure—that is, participants did not perceive that they had sufficient opportunity to peruse the material. Responses were combined to form a measure of time pressure ($\alpha =$.69). At the conclusion of the study, participants were debriefed.

Results

Preliminary Analyses

Preliminary checks revealed that there were no differences among cells in initial attitude toward the target issue. Once again, no significant main or interaction effects involving initial attitude position emerged. Participants who expressed aneutral attitude towards the target issue on the initial assessment of attitude (i.e., the computer task), and thus could not be assigned to either normative condition, were excluded from the main analyses, leaving a final sample size of 273.

Manipulation Checks

Attitude accessibility. Logarithmic transformation of the response latencies was performed before analysis. Unlike Study 1, inter-item correlations among the response latencies were significant (average r = .24, p < .01). As a result, an adjustment was made to account for differences in general speed of responding (see Fazio, 1990b). A ratio score was calculated (ratio = target latency/target latency + baseline latency), such that the lower the ratio, the faster the target latency relative to the filler latencies. Thus, participants in the high accessibility condition should have lower ratios than participants in the low accessibility condition. A 2 (accessibility) x 2 (time pressure) x 2 (identification) ANOVA revealed the expected main effect for attitude accessibility, F(1, 346) = 5.27, p < .05, $\eta^2 = .01$. High accessibility participants had faster target latencies than the low accessibility participants (Ms = 5164.72 and 5498.70, respectively).

Norm congruency. On the measure of perceived similarity between their attitude and the group norm, analysis revealed a significant main effect for norm congruency only, $F(1, 255) = 77.97, p < .001, \eta^2 = .22$. Participants in the attitude-congruent norm condition perceived greater similarity between their attitude and the group norm (M =7.43) than participants in the attitude-incongruent norm condition (M = 5.06).

Time pressure. Analysis on the measure of perceived time pressure revealed a significant main effect for time pressure only, F(1, 331) = 109.03, p < .001, $\eta^2 = .24$. As expected, participants in the low time pressure condition reported experiencing less time pressure than participants in the high time pressure condition (Ms = 3.02 and 5.06, respectively). However, because this manipulation was concurrent with the normative support manipulation, it is possible that the manipulation of time pressure may have interfered with the acquisition of the normative information. In order to ensure that effects attributed to time pressure were not due to differences in participants' knowledge

of the norm, an analysis of participants' comprehension of the content of the norm was conducted. Analysis revealed no differences due to time pressure (F < 1). Thus, the low and high time pressure groups did not differ in their knowledge of the norm.

Identification. The overall mean on the identification scale was 5.91 on the 9point scale. For the purpose of analysis, participants were classified as high or low identifiers on the basis of a median split ($\underline{Ms} = 7.04$ and 4.57, respectively). *Effects of Attitude Accessibility, Time Pressure, Norm Congruency, and Identification*

Attitude-behaviour and attitude consistency data were analysed in a series of 2 (attitude accessibility) x 2 (time pressure) x 2 (norm congruency) x 2 (identification) analyses of variance. On the measure of willingness to display attitude-consistent behaviour, analysis revealed a main effect for norm congruency only, F(1, 257) = 389.48, p < .001, $\eta^2 = .58$. As expected, participants exposed to an attitude-congruent norm reported greater willingness to display attitude-consistent behaviour than participants exposed to an attitude-incongruent norm (Ms = 7.95 and 3.89, respectively).

On the ballot measure of support or opposition to the introduction of VSU, analysis of variance revealed a main effect for norm congruency, $F(1, 255) = 47.07, p < .001, \eta^2 = .15.^2$ As with the willingness measure, participants exposed to an attitudecongruent norm displayed greater attitude-behaviour consistency (M = 1.91) than participants exposed to an attitude-incongruent norm (M = 1.55). In addition, there was a significant Time Pressure x Identification interaction, $F(1, 255) = 4.90, p < .05, \eta^2 = .02$, an effect that was qualified by a significant Time Pressure x Norm Congruency x Identification interaction, $F(1, 255) = 5.78, p < .02, \eta^2 = .02$. Simple main effects analysis revealed a significant interaction between norm congruency and identification under low time pressure conditions only, $F(1, 255) = 5.58, p < .02, \eta^2 = .03$ (see Figure 2). Further analysis revealed that the effect of norm congruency was significant for both high identifiers, F(1, 255) = 38.46, p < .001, $\eta^2 = .34$, and low identifiers, F(1, 255) = 4.39, p < .05, $\eta^2 = .06$. However, this effect was stronger for high identifiers. Thus, under low time pressure conditions, the group norm had a greater impact for individuals who were strongly attached to the group.

Figure 2 around here

On the measure of attitude consistency, there was a significant main effect for norm congruency only, F(1, 244) = 40.52, p < .001, $\eta^2 = .13$. As expected, exposure to an attitude-congruent norm was associated with greater attitude consistency (i.e., less attitude change) than exposure to an attitude-incongruent norm (Ms = 4.77 and 3.58). In addition, there was a significant Attitude Accessibility x Norm Congruency interaction, F(1, 244) = 4.46, p < .05, $\eta^2 = .01$. Simple main effects analysis revealed that for both low accessibility, F(1, 244) = 44.58, p < .001, $\eta^2 = .26$, and high accessibility participants, F(1, 244) = 7.07, p < .05, $\eta^2 = .05$, exposure to an attitude-incongruent norm was associated with less attitude consistency. However, as shown in Figure 3, this effect was more marked for participants whose attitudes had not been made accessible.

Figure 3 around here

Discussion

In support of the central hypothesis, the results of the second study indicated that the extent of attitude-behaviour and attitude consistency was influenced by the extent of ingroup normative support. Like Study 1, the second study provided some support for the proposed interplay among norm congruency, identification, and mode of behavioural decision-making. Specifically, it was found that under conditions assumed to favour deliberative processing—that is, low time pressure—the attitudinal congruency of the norm was more influential for high identifiers than low identifiers.

In accord with the findings of Study 1, there was support for the central prediction, derived from the social identity approach to attitude-behaviour relations, that individuals would be less likely to behave in accordance with their initial attitudes when exposed to an attitude-incongruent rather than an attitude-congruent norm. This provides continued support for the re-emergence of the social context as an important theme in attitude-behaviour research (Terry & Hogg, 2000).

In further support of the proposed interplay between cognitive and normative factors, the effects of norm congruency and identification did vary as a function of mode of behavioural decision-making (i.e., time pressure condition). Specifically, there was an interaction between norm congruency and identification under low time pressure conditions but not high time pressure conditions. As in Study 1, under conditions presumed to favour deliberative processing (i.e., low time pressure), the norm had most impact for individuals for whom the group was a salient basis for self-definition. That is, high identifiers displayed less consistency when exposed to an attitude-incongruent norm. Moreover, norm congruency was the only effect to be significant under conditions presumed to promote spontaneous decision-making (i.e., high time pressure). In sum, although norms from a behaviourally relevant reference group influenced attitude-behaviour consistency under both modes of decision-making, when conditions were assumed to promote systematic processing (i.e., low time pressure), high identifiers were more responsive to the attitudinal congruency of the norm. From a social identity

perspective, this pattern of results can be attributed to the fact that under such conditions, high identifiers have both the motivation and the ability to process the information in the manner they prefer—that is, systematically.

Attitude consistency was also influenced by the attitude congruence of the norm. Specifically, participants exposed to an attitude-congruent norm displayed less attitude change than participants exposed to an attitude-incongruent norm. However, in partial support of Fazio's (1990a) MODE model, there was evidence that this effect was moderated by attitude accessibility. Thus, although there was no evidence to support the role of attitude accessibility on attitude-behaviour consistency, the accessibility of the participants' attitude did moderate the effect of the norm on attitude change. Exposure to an attitude-incongruent norm was associated with attitude change for all participants; however, this effect was most marked for the low accessibility participants. Thus, it appears that it is when participants' own attitudes are not highly available to guide subsequent attitudinal responses that norms have the most impact. However, it should be noted that even for participants whose attitudes were relatively accessible, norms still had a significant impact on attitude consistency. Thus, although this second study did provide some evidence of effects of attitude accessibility, the lack of support for its influence on actual behaviour suggests that the impact of attitude accessibility on the attitudebehaviour relationship may be only indirect, occurring via attitudes.

The assessment of strength of identification at the end of the study is a potential limitation of the research—levels of identification may have reflected the extent of influence of the norm and hence accounted for the observed effects of identification. However, post-hoc analyses indicated that this was not the case—there were no main or interactive effects of the manipulated variables on identification. In addition, the fact that the same results emerged as in Study 1—in which a pretest measure of identification was used—suggests that the present results cannot be attributed solely to this effect.

General Discussion

Taken together, the results of the two experiments reported in the present paper provide support for the proposed reconceptualisation of the role of norms in attitudebehaviour relations along the lines suggested by the social identity approach. There were a number of findings that supported this perspective. First, the results of the research provided clear evidence for the central prediction of the present research, namely that normative support from an important group would influence attitude-behaviour and attitude consistency. In both studies, people were more likely to behave in accordance with their attitude when exposed to an attitude-congruent norm than when exposed to an attitude-incongruent norm. The results linking norm congruency to both attitudes and behaviour are in line with the social identity approach--provision of normative support for one's attitudes should strengthen attitude-behaviour consistency (and minimise attitude change) because it validates the attitudes and behaviours appropriate for group members.

Across both studies, there was evidence for the proposed interplay between normative and cognitive factors in attitude-behaviour relations. Moreover, this effect emerged across two different manipulations of mode of behavioural decision-making--a mood and an ability-based manipulation--and on different dependent measures. It should be noted, however, that this effect emerged only on the more "behavioural" measures– volunteering behaviour in Study 1 and a ballot measure in Study 2--and not on the willingness measure, despite the fact that the willingness measures were continuous and should be more reliable. However, in previous research on the interplay between the variables outlined in the MODE model (Fazio, 1990a) and the social identity approach (e.g., Terry et al., 2000; Wellen et al., 1998; White et al., 2002), the major findings of interest have often emerged on dichotomous behavioural measures such as the ones used in the present research, rather than the continuous willingness measures. The restriction of the effect to the behavioural measures may be due to the fact that mode of behavioural decision-making influences how individuals make behavioural decisions in the immediate situation but not how they form intentions to perform a behaviour in the future. Thus, behavioural measures may be more sensitive to the effects of mode of behavioural decision-making, and given that they assess actual behavioural responses rather than intended behaviour, they should be regarded as the stronger measures and hence point to the importance of the present findings.

On the measure of volunteering behaviour in Study 1 and on the ballot measure in Study 2, the norm had a greater impact on the attitude-behaviour consistency of high identifiers under conditions assumed to favour deliberative processing--neutral mood, low time pressure. This finding is consistent with the results of previous research (Forgas & Fiedler, 1996; Wellen et al., 1998; cf. Terry et al., 2000). From a social identity approach, individuals for whom the group is a salient basis for self-definition should be motivated to consider group-relevant norms carefully, but they may only have the opportunity to do so when conditions favour deliberative processing. Under these circumstances, the realisation that their attitude is inconsistent with the views of a highly self-relevant group should motivate high identifiers to bring their behaviour into line with the position represented by the norm

Under conditions assumed to favour spontaneous decision-making—positive mood, high time pressure—the effect for norms emerged, but did not vary with identification with the group. That is, both low and high identifiers responded to the attitude congruence of the norm under conditions assumed to favour spontaneous decision-making. Moreover, contrary to the MODE model (Fazio, 1990a), there were no

effects for attitude accessibility under spontaneous decision-making conditions in either study—a finding that is inconsistent with previous tests of the model (e.g., Sanbonmatsu & Fazio, 1990; Schuette & Fazio, 1995). However, as mentioned previously, these tests have not examined the role of attitude accessibility, norms, and mode of behavioural decision-making simultaneously or examined the effects of norms in the attitudebehaviour context. The results of the experiments reported heresuggest that the MODE model (Fazio, 1990a) may have limited use as an explanation of the attitude-behaviour relationship, especially when the role of group norms is taken into consideration. However, given that the current research represents one of the first tests of this model in the attitude-behaviour context, further research is needed to investigate how the processes outlined in the model might operate to influence attitude-behaviour consistency.

Despite the failure to find support for the role of attitude accessibility in the attitude-behaviour relationship, there was some evidence in Study 2 that attitude accessibility interacted with norm congruency on attitude consistency. Specifically, it was when participants' attitudes were not accessible that the norm had the greatest impact. However, even when participants' attitudes were relatively accessible, norms still had a significant impact upon attitude consistency. Thus, in the present study, the process of bringing one's own attitude to mind seems to attenuate the effects of social influence on attitude change. In fact, increasing the accessibility of an individual's attitude may strengthen that attitude, making it more resistant to change in the future (see Petty & Krosnick, 1995) and more likely to guide future behaviour.

One of the strengths of the present research was the use of two different manipulations of mode of behavioural decision-making—mood and timepressure. However, it should be noted that no direct evidence for the link between these manipulations and the different types of mode of behavioural decision-making was obtained in the present research, which is consistent with the majority of studies in this area. In future, studies should attempt to assess the variable of interest, mode of decision-making, more directly, perhaps through the use of response latencies (e.g., Forgas & Fiedler, 1996). The direct assessment of mode of decision-making is particularly important when one considers that the different manipulations of the construct (i.e., mood, time pressure, fear of invalidity) may, by necessity, take place at different points in the experimental process. Direct assessment of the effects of manipulations designed to vary mode of behavioural decision-making would provide clear evidence that the latent construct of interest was responsible for the observed effects.

In conclusion, the present results are important, in that they reflect clear support for the view that attitude-behaviour relations cannot be well understood without reference to the social context in which behavioural decisions are made and enacted--a social context in which individuals not only differ in terms of the reference groups to which they belong, but in terms of their level of psychological attachment to those groups. However, the evidence that the effects of ingroup norms and identification may be dependent upon the contextual conditions under which behavioural decisions are made suggests a more subtle interplay among normative and cognitive factors than was originally conceived (see Terry & Hogg, 1996), and one that should be explored in more depth in future research.

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Footnotes

1. Although this measure was a dichotomous dependent variable, examination of the distribution of inconsistent and consistent responses (26 and 74%, respectively) indicated that the distribution was within the 25/75% guidelines recommended by Tabachnick and Fidell (1996) for use in analysis of variance. In addition, a hierarchical loglinear analysis performed on the data revealed identical results to those obtained from the ANOVA.

2. Once again, the distribution of inconsistent and consistent responses (30 and 70%, respectively) to this dichotomous measure was within the guidelines recommended by Tabachnick and Fidell (1996). Moreover, a hierarchical loglinear analysis revealed identical results to those obtained from the ANOVA.

Figure Captions

Figure 1. Interaction between norm congruency and identification on the measure of time volunteered under neutral mood

Figure 2. Interaction between norm congruency and identification on the ballot measure under low time pressure

Figure 3. Interaction between attitude accessibility and norm congruency on attitude consistency

