

Intergroup Behaviour and the Self*

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It is desirable for the psychological analysis of intergroup behaviour to combine the relevant perceptual-cognitive and motivational processes in such a way as to represent both the uniqueness of intergroup behaviour and its commonality with nonintergroup behaviour. This is illustrated by means of social identity theory and by research on social stereotyping. Two other pieces of research — reward allocation and belief polarization in an intergroup context — uncover individual-based personal identity concerns in addition to group-based social identity concerns. The intrusion of personal identity into intergroup behaviour points to a self-concept model which comprises personal and group identities as functionally mutable components.

I would like to discuss three aspects of my research on intergroup behaviour. The first aspect, social stereotyping, will be dealt with briefly. This allows me later to concentrate on the other two aspects: discrimination and belief polarization. Some of the research has been carried out jointly with my graduate students, notably Greg Tims, Fiona Cram, and Shelley Wilson. I wish to dedicate my address to the memory of Henri Tajfel and Graham Goddard.

Let me begin by sketching the theoretical ideas behind our research. Human beings exist not only as unique individuals, but also as members of social groups. Group membership provides a basis on which members of one group may interact, collectively or individually, with another group

or its members (Sherif & Sherif, 1969, p.223). The resulting intergroup behaviour usually conjures up images of extreme forms of human conduct such as conflict and prejudice, as if the individuals in question are out of their minds or not of their true selves.

Associated with these images is the belief that scraping off these and other social bits will bare the real individual underneath. This philosophical dualism has been a red herring in the development of intergroup behaviour research. No longer should we be serious about it. In its place, a more useful position is one which acknowledges that there are both continuity and discontinuity between intergroup and nonintergroup behaviour. This position keeps intergroup research within psychology rather than to place it in contradistinction to psychology, and at the same time allows for the emergence of distinctive intergroup properties. I think this is the main thrust of Tajfel and Turner's (1979) social identity theory of intergroup behaviour, which has been a major stimulus of my research.

Social identity theory

Social identity theory has a perceptual-cognitive component and a motivational component. One of the insights of the the-

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ory is that groups exist not so much as external physical entities, but as cognitive categories represented mentally. Categorization produces a perceptual assimilation effect and a perceptual contrast effect. The former applies to elements within a category, and makes them appear more similar to each other than they actually are. The contrast effect applies to, and exaggerates inter-category elements. As a result of the two effects, the categories become cognitively distinct and useful for simplifying complex information or filling out inadequate information. Assimilation and contrast are immediate perceptual processes rather than delayed inferential processes, whereas the categories, once formed, are fairly stable cognitive schemas. In short, categorization triggers a double perceptual readiness for minimizing within-category differences and exaggerating inter-category differences.

The dual perception effects of categorization were initially demonstrated on psycho-physical tasks in the late 1950s and early 1960s by Tajfel and others (Tajfel, 1959; Tajfel & Wilkes, 1963). The resulting judgmental biases are reminiscent of social stereotyping, in which members of a category are seen by outsiders as more similar than they see themselves, and as more different from members of another category than whatever difference there is between the categories. However, the perceptual readiness responsible for these biases in psycho-physical judgments cannot be extrapolated to intergroup perception without some modification.

The modification is necessitated by an important discontinuity between psycho-physical categories on the one hand, and social categories involving 'us' the ingroup, and 'them' the outgroup, on the other hand. Ingroup and outgroup are not value-free, cold cognitive categories but represent emotional salience and involvement of the self. When dealing with ingroup/outgroup categories, people cannot help implicating themselves in the process. As a result, the perceptual readiness associated with categorization will be emotionally directed.

The emotional overlay is especially strong on the perception of intergroup differences. For example, when an intergroup

difference is unfavourable to the ingroup, the difference may be under- rather than over-estimated. Greg Tims and I tried to demonstrate this by asking New Zealand subjects to judge the heights of netballers in the New Zealand and Australian national teams. Subjects were female physical education students who were netball fans. There were two experimental conditions. In the Australia Tall condition, the taller half of the stimuli were labelled Australian and the shorter half New Zealander. This was reversed to produce a New Zealand Tall condition. The results showed that the (New Zealand) subjects under-estimated the intergroup height difference in the (unfavourable) Australia Tall condition relative to the New Zealand Tall condition (Tims, 1987).

Results like this point to some warm-blooded processes, which brings us to the motivational component of social identity theory. As individuals grow up, they become curious about the question of "Who am I?" Gradually, they form their self-concepts based on knowledge and associated evaluations. Self-concepts are not fixed but changeable. How best to monitor the change in face of adverse conditions, is a durable problem confronting many individuals. For example, personal failure and personal inefficacy will tend to spoil the person's self-concept, as will disengagement from a significant social role, loss of

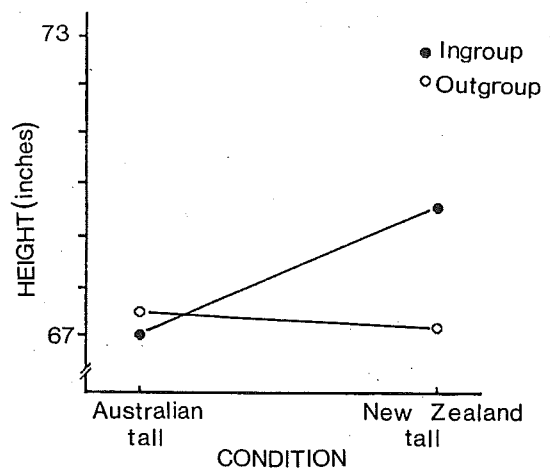


Figure 1. Underestimation of ingroup-outgroup height difference in the (unfavourable) Australia Tall condition relative to the (favourable) New Zealand Tall condition.

standing in a group, and unfavourable wider social change which ridicules the person's lifestyle and shakens the superiority of his/her group. Perhaps aging, too, will disparage the self-concept. As individuals prefer a positive to a negative self-concept, this preference can be expected to affect the way they feel, think, and act.

The motivational component of social identity theory deals specifically with that part of the self-concept concerning the impact of groups. This part, called social identity, is based on knowledge of group membership and associated evaluations. Just as the person will strive for a positive self-concept, so will he/she strive for a positive group-based social identity. (The term 'social identity' is too broad when referring to the self-concept, and may be replaced by the narrower term 'group identity'.) One way of achieving positive social identity is to upgrade the ingroup relative to a relevant outgroup on an existing valued dimension through competitive discrimination. A second way is to create a new dimension on which the ingroup can compare favourably with the outgroup. In addition to social competition and social creativity referred to above, still another way is through the revival and affirmation of a group tradition which members can take pride in and consider to be their own, such as language and religion.

Combining the perceptual-cognitive and motivational components yields the following. Groups are mental categories for ordering and making sense of the perceptual world. Groups-as-categories trigger a readiness for perceptual biases directed towards categorical distinctiveness, and provide the cognitive base for acting in terms of category membership. Membership in these categories impart a sense of social identity. The press for a positive social identity leads to diverse actions with the common underlying goal of enabling the in group to compare favourably with the outgroup. On this basis, and by incorporating a few other parameters relating to belief structures and the social context, social identity theory has developed over time into a productive matrix of statements concerning various aspects of intergroup relations (see Turner, 1987). It is best suited for dealing with what I have

elsewhere called the 'darker' side (Ng & Cram, 1986) of intergroup relations: stereotyping, prejudice, discrimination, and competition.

Discrimination in reward allocation

Let me now proceed to my research on social identity theory's prediction of intergroup discrimination in the allocation of money rewards. Research by British, European, and New Zealand researchers have already shown that the mere division of people into ad hoc groups on some apparent trivial basis was sufficient to trigger discriminatory allocation favouring the ingroup (Brewer, 1979; Brewer & Kramer, 1985; Tajfel, 1982; Vaughan, 1978; Wetherell, 1982). This ingroup bias by minimal groups occurred without personal material gain and in the absence of historical hostility between the groups. It was interpreted as a competitive means of producing a favourable comparison of the ingroup over the outgroup, being motivated by social identity needs and aided further by the perceptual differentiation of the ingroup from the outgroup (Turner, 1975).

A nearly invariant feature of the minimal group experiments has been that the ingroup bias, far from being blatant, is almost always tempered with fairness (see also Branthwaite, Doyle & Lightbown, 1979; Tajfel, 1970). I began to ask what part would fairness play in intergroup discrimination, and how might it be related to social identity theory. My inquiry led me to equity theory (Walster, Berscheid & Walster, 1976). The essential point of equity theory is that individuals favour an allocation rule that recognizes the relative inputs of the recipients. This equity preference is particularly strong where there is clear evidence of unequal performances among recipients. Developed in America, equity theory embodies the American ideal of an open society with abundant opportunities for social mobility through individual merit. It has generated numerous research while remaining *theoretically* insensitive to the fact and psychological meaning of bias.

Traditionally, social identity and equity research have stayed clear of each other. I

Table 1. *Equity scores*

	Non-categorization (<i>n</i> = 16)	Ingroup productive (<i>n</i> = 16)	Outgroup productive (<i>n</i> = 15)
Mean	2.00	3.63	-0.53
SD	3.08	1.78	5.38

Note: A positive equity score favours the more productive recipient, and a negative score favours the less productive recipient.
[$F(2,44) = 5.08, p < .01$]

first spotted this when writing my doctorate dissertation in 1977. Later, when attempting to combine equity and social identity research, I simply inserted a performance variable into the minimal group design (Ng, 1984). Subjects were students at the Chinese University of Hong Kong. They were divided into a red and a black group based on a colour-guessing task. Individual performances on this task contributed to a reward pool. At the end of the experiment, subjects individually divided a fixed sum of money between two anonymous others whose respective performances (i.e., contributions to the reward pool) were clearly marked on the reward paper. One recipient belonged to the same group as the subject. The other recipient was an outgroup member. Their relative performances were varied to yield an ingroup productive condition and an outgroup productive condition. In the former, the performance was greater by the ingroup than the outgroup recipient. This was reversed in the outgroup productive condition. There was also an interpersonal condition in which the subjects were not categorized into groups. In this (non-categorization) condition, the two recipients again had different performances as in the two intergroup conditions.

The allocations were expressed as equity scores in favour of the more productive recipient, regardless of group membership. Consistent with equity theory, the mean equity score was reliably greater than zero in the non-categorization condition, indicating the preference for equity in interpersonal allocations. Equity was accentuated in the ingroup-productive condition but was replaced by equality in the outgroup-productive condition. Clearly, subjects were capable of behaving equitably. They were also willing to manipulate equity to serve the ingroup.

Consistent with later research by van Avermaet and McClintock (1988), the observed ingroup bias was not blatant; yet the overall results left little doubt about ingroup bias flying in the face of equity. I did not ask the subjects to explain or justify their allocation decisions, nor did I confront the subject groups with one another. Had I done so, I would probably have witnessed an outburst of ideological creativity by the ingroup-favouring subjects and of moral condemnation by the equitable subjects.

In subsequent experiments, my students and I continued pitting equity against bias. On top of this, we introduced additional variables to see if they would alter the relative strength of equity and bias. One such variable was collective decision-making (Ng & Cram, 1987). I will not talk about this line of research here. Another of the added variables, which I will talk about, was status insecurity.

Let me capture the idea of status insecurity with the help of a sociological study by Gold (1952). At the time of the study, janitors in Chicago as an occupational group received a substantial income, on which they staked their claim to middle-class status. Their status pretensions were resented by their tenant clients, who continued to accord them low status on the basis of the dirty work they were required to do. The janitors became frustrated and directed their bitterness against their clients.

The janitors' predicament can be thought of in terms of two facets of group status. These refer to how group members themselves evaluate their own group, and how their group is evaluated by others. Hyman (1942) called the two facets 'subjective' and 'accorded' group statuses respectively. The janitors' predicament arose from an incongruity between high subjective and low ac-

corded statuses. We operationalized status insecurity in terms of this incongruity, and postulated that the incongruity would weaken the social identity of group members. In contrast, when subjective and accorded statuses were both high or both low, they were congruous and status insecurity would be relatively small.

We proceeded to find a field setting where we could test for status insecurity effects. We went to a Dunedin boys' school renowned for its sporting achievements. From a sports survey in which the boys were asked to nominate two top sporting classes, it was possible to identify classes with a high or a low subjective class status, and a high or a low accorded class status. On the basis of this information, classes were carefully paired to produce an incongruous and a congruous status condition.

In the experiment (Ng, 1986), held a week after the survey, status incongruity or congruity was either made salient by disclosing the relevant survey results, or nonsalient by not mentioning the results. In this way, the incongruity variable was derived naturally whereas the salience variable was manipulated experimentally. The idea behind the salience manipulation stemmed from the realization that status incongruity of the sort we were interested in was fairly common-place in real life. Most people can learn to live with it. As a result, real-life status incongruity is for most of the time in a lazy psychological state, and has to be provoked into action. Situational salience might accomplish this provocation. Only subjects who were keen on sports were selected for the experiment. During the experiment, they were asked to work on several sports-related tasks designed to set up an inferior and a superior performance condition at the individual level. At the end of the experiment, each subject judged the performances of an anonymous ingroup and an outgroup member, and on the basis of the judged performances, to reward them with money points. The subject could award up to 30 money points to any one recipient independently of the award given to the other recipient. Note that the allocation procedure was nonzero-sum, rather than zero-sum as in the Hong Kong experiment.

I expected to find equity and ingroup bias as before. In addition, I hypothesized that status incongruity coupled with situational salience would increase ingroup bias and decrease equity.

What were the results? Well, one must realize that not all experiments will work. In this case only the equity hypothesis was confirmed by a significant main effect due to the performance variable (see also the interaction effect below). There was no ingroup bias whatsoever, which was in stark contrast to the Hong Kong study. I did not think I could blame the method. Nor did I think the study was a total loss. There were two other significant findings which, though unanticipated, have strongly influenced my thinking on intergroup behaviour.

The first finding was that subjects in the salient/incongruous cell rewarded less than did subjects in the other cells (see Figure 2). A *post hoc* comparison was made between this cell and the remaining cells as a whole, using a composite error term and its associated *df*. The comparison was significant for both ingroup allocations, $F(1,52) = 5.3$, $p < .05$, as well as outgroup allocations, $F(1,52) = 6.8$, $p < .05$.

Secondly, compared to subjects in the congruous condition, subjects in the incongruous condition differentiated less between superior and inferior performances

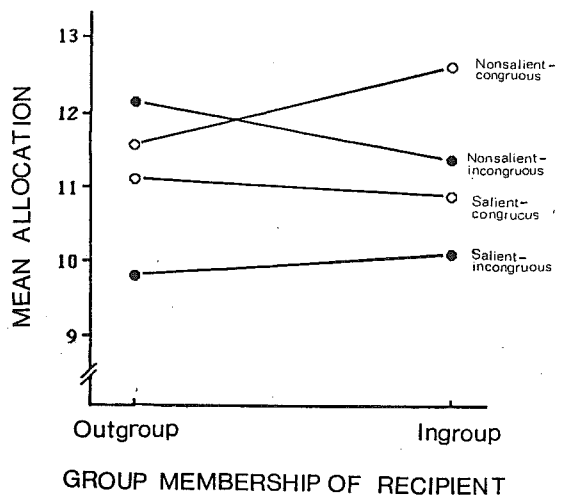


Figure 2. Interaction between group membership of recipients, status of allocators, and status salience.

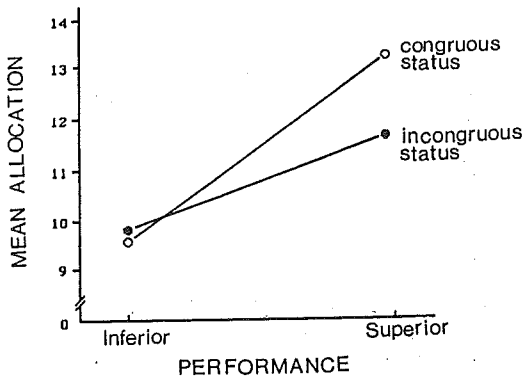


Figure 3. Interaction between performance of recipients and status of allocators.

(see Figure 3). Essentially, the latter under-rewarded superior but not inferior performance. Using a composite error term and its associated *df* for *post hoc* comparisons, the between-condition difference in the reward for superior performance was significant, $F(1,54) = 8.2, p < .01$, whereas the difference in the reward for inferior performance was not.

Thus, there were two instances of under-reward by incongruous status subjects. One occurred when their status incongruity was made salient, and the other when they were rewarding superior performance. I reasoned that these subjects, owing to their already insecure classroom-based social identities, were over-sensitive to the psychological threat emanating from the situational salience of their status incongruity or from others' superior performances. They reacted to the threat by behaving meanly. This seems plausible in light of Amabile and Glazebrook's (1981) finding of a negativity bias shown by subjects whose self-image was threatened.

The important point about the two instances of under-reward was their personal focus; that is, they were directed at both ingroup and outgroup recipients. For this reason, they may be called *interpersonal bias* in contrast to *intergroup bias*. I was at a loss of how to reconcile my above interpretation of interpersonal bias with social identity theory. Surely, because of its transcendence over group membership, interpersonal bias could hardly have functioned to safeguard social (group-

based) identity. So what function could interpersonal bias have served?

I reasoned that the function of interpersonal bias was to safeguard *personal* rather than social identity. Personal identity is the outcome of self-other comparisons based on personal attributes that differentiate an individual from others, in contrast to social identity which is the outcome of ingroup-outgroup comparisons based on group attributes that define an individual as a member of certain groups and not others. The distinction here follows closely social identity theorists (Brown & Turner, 1981; Turner, 1985), and should not be confused with a similar distinction made by symbolic interactionists (e.g., McCall & Simmons, 1978). Personal identity is related to social identity in that they are parts of a person's self-concept (see Figure 4). The social identity part, but not the personal identity part, has traditionally been the concern of social identity theory. The present model stresses both components, and further proposes that although they are structurally distinct, functionally they may be mutable so that the loss to the overall self-concept due to a deficiency in one component can be compensated for by a gain in the other. From this viewpoint, the observed interpersonal bias can be seen as an attempt by subjects with incongruous status to enhance their personal identity in compensation for their threatened social identity, in order to safeguard their overall self-concept. This is referred to in Figure 4 by the (social identity) \Rightarrow (self-other comparison) \Rightarrow (personal identity) compensatory route.

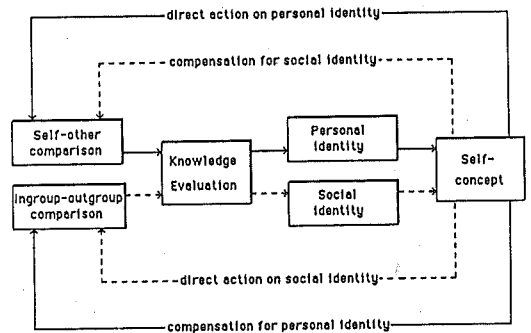


Figure 4. Model of self-concept showing the identity components and the functional mutability between personal and social identities.

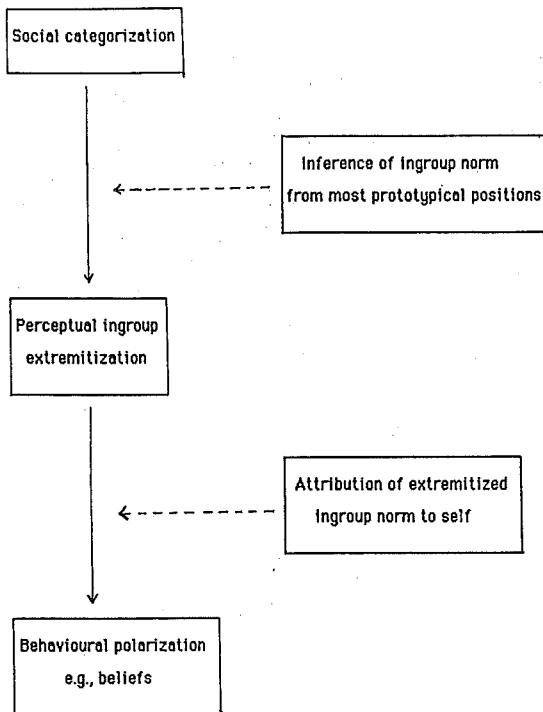


Figure 5. Self-categorization theory of belief polarization.

The above self-concept model, schematically similar to Vaughan's (1987), implicates a high degree of functional plasticity in line with the shifting dynamic nature of the self-concept advocated by James (1890), McGuire (1984), and others (Alexander & Knight, 1971). However, I should point out several other features which also underlie the model. Not every comparison will impress on the identity component. Even if it does, the impressed identity may not make any noticeable difference to the self-concept, which is the person's cumulative, generalized theory of self (Schlenker, 1985), and has an enduring structure protective of change (Mortimer & Lorence, 1981; Swann, 1985). True believers, for instance, are not easily shaken in their self-concepts. Another omitted feature is that neither the master concern for a positive self-concept, nor the slave concerns for positive personal and group identities, have much to do with strategic self-presentation or impression-management.

The self-concept model presented above was an important development in my thinking. Already, Stephenson (1981) and others had noted that social identity research was in danger of overemphasizing intergroup processes to the neglect of interpersonal processes. It finally dawned on me that my experimental subjects were citizens of a society which valued individualism over collectivism. I now see a much more intimate connection between intergroup and interpersonal processes.

This new understanding has been further strengthened by a later experiment in which I attempted to reverse the above social-to-personal sequence. I lowered experimentally the personal identity of subjects to see if this would lead to ingroup bias as a compensatory mechanism safeguarding the self-concept (that is, the (personal identity) \Rightarrow (ingroup-outgroup comparison) \Rightarrow (social identity) compensatory sequence in Figure 4). The results supported this expectation, but this support was confined to an indirect measure of bias (Ng, 1985).

Belief polarization

Further research also shows the interplay between social and personal identities. It was initially designed by Shelley Wilson and myself to test for belief polarization (Ng & Wilson, in press). We were interested in beliefs that were shared by a group and opposed to by another group, and how the groups might polarize their beliefs away from each other. Our starting point was a recent development of social identity theory by Turner (1987), called self-categorization theory.

The tenets of self-categorization theory most relevant to belief polarization can be summarized briefly (see Figure 5). When group membership is made salient through intergroup comparison, group members infer the ingroup norm from the most representative or prototypical ingroup position, resulting in the perceptual extremization of the ingroup norm. Next, they attribute this extremitized ingroup norm to self and in so doing adopt a more extreme or polarized position. In the case where the group norm relates to group beliefs, the end product is belief polarization.

Table 2. *Christian (c) and atheist (a) belief items*

1. Life ends at death. (a: 12/17)
2. A person is only answerable to society and oneself for his or her actions. (a: 15/16)*
3. Through faith in Christ God offers salvation. (c: 15/18)*
4. The Bible reveals the truth about God. (c: 15/18)*
5. The world develops without God. (a: 9/16)
6. Sin is a state of separation from God. (c: 15/19)*
7. The world will end according to God's plan. (c: 13/18)*
8. The spirits of persons who have died can sometimes communicate with the living (c: 7/10)
9. It is important to lead a good and ethical life respecting one's fellow beings, but religious belief is not necessary for this. (a: 18/5)
10. God does not exist (a: 12/17)
11. A person can communicate with God through prayer. (c: 17/18)*
12. Jesus Christ is the son of God and through him a person can know God. (c: 17/17)*
13. Science can answer all our questions (a: 6/16)
14. Mankind has evolved from lower forms of life. (a: 19/11)
15. The only reality is the reality which can be experienced in this world. (a: 10/16)
16. Through belief in the Trinity resurrection and eternal life are possible. (c: 14/18)*

Note: Results were based on part A responses by believers ($n = 17$) and atheists ($n = 19$) in the self condition.

(a: 15/16)* = an atheist item believed by 15 atheists and disbelieved by 16 believers.

(c: 15/18)* = christian item believed by 15 believers and disbelieved by 18 atheists.

Items marked by * were selected for analyses in Table 3.

We tested these predictions in reverse order. We wanted to see first of all if membership salience led to belief polarization, and then if polarization did occur, whether or not this was preceded by the perceptual extremization of the ingroup norm.

We manipulated group membership salience by focusing the subject's attention on the ingroup. This was the procedure usually adopted by researchers. In addition, we attempted a new procedure by focusing attention on the outgroup. There were two groups of subjects. The first group, believers, consisted of student members of the Christian Union and Catholic Society. Atheists, the second group, were student members of Youth for Antichrist and the Atheist Society. This choice of subjects reflected our interest in naturalistic,

firmly held beliefs representing 'big', not 'small', selves. Sampling was not random, but based on personal contact. A total of 130 potential subjects were contacted.

Fifty-one believers and 52 nonbelievers participated. They individually completed a questionnaire comprising 8 Christian and 8 non-Christian belief items (see Table 2). Each item required a response on a 9-point scale varying from believe strongly to disbelieve strongly.

The questionnaire consisted of two identical parts. Part A, to be answered first, represented the experimental manipulations and required subjects to estimate the typical beliefs of either an ingroup member (ingroup condition), or an outgroup member (outgroup condition), or simply to give their own beliefs (self condition). Hence a believer in the ingroup condition would estimate the typical beliefs of fellow Christians, in the outgroup condition the typical beliefs of atheists would be estimated, and in the self condition the subject would only give his/her beliefs. The self condition in Part A provided a baseline for testing ingroup extremization in the ingroup and outgroup conditions. For atheists the ingroup was atheists and the outgroup was Christians. This ingroup-outgroup categorization already existed on campus.

Once Part A had been completed and put back into the envelope, subjects were asked to fill in Part B. Part B contained the same list of items as Part A, but required only the subject's own responses. Part B results were used for testing polarization due to ingroup and outgroup comparisons. The experimental procedure adopted here did not involve group discussion, or even anticipated interaction with the outgroup, and hence was more minimal than those which did involve these elements, e.g., Doise (1969), Wetherell (1987), Mackie and Cooper (1984), and Mackie (1986). It was similar to Reid's (1983), except that our subject groups had a much more clearly defined ingroup-outgroup categorization than Reid's social work vs commerce students categorization.

Prior to the analysis, the questionnaire items were scrutinized for their abilities to separate the believers and atheists on op-

Table 3. *Multivariate mean extremity scores (based on 16 items)*

	Believers		Atheists		Marginal M
	n	M	n	M	
Part B (own responses)					
Ingroup condition	18	3.54	17	3.19	3.37 ^a
Self condition	17	3.29	19	2.97	3.12 ^b
Outgroup condition	16	3.34	16	2.86	3.10 ^c
Part A					
Ingroup condition	18	2.93 ^d	17	3.27 ^f	3.10
Self condition	17	3.26 ^e	19	2.95 ^g	3.11
Outgroup condition	16	3.02	16	2.72	2.87

Note: Planned comparisons (df = 16,82):

a vs b: Pillai-Bartlett trace = 0.242, $V = 1.64, p = .077$.

c vs b: Pillai-Bartlett trace = 0.232, $V = 1.55, p = .102$.

d vs e: Pillai-Bartlett trace = 0.244, $V = 1.65, p = .074$.

f vs g: Pillai-Bartlett trace = 0.284, $V = 2.03, p = .020$.

posite sides of the scale, based on Part A responses in the self condition. Eight of the 16 items clearly separated the two groups by attracting a consensus of 80% or more from believers and atheists in the corresponding directions (see Table 2). One-way ANOVAs showed that each of the eight items discriminated between the groups beyond the 0.00001 level of significance. Note that seven of the eight items were Christian items.

All 16 items were retained in the initial analysis in order to assess the results fully. A second, more focused, analysis was carried on the eight most discriminating items. As the two sets of findings were essentially similar, I will report below the 16-item results, and only mention in passing any major differences from the 8-item results. Subjects' responses to the selected items were cast into extremity scores by taking the absolute value of original response minus five, the neutral position on the 9-point scale. Extremity scores ranged from 0 to 4. Table 3 shows the multivariate means of Part A and Part B results.

To test for polarization, planned comparisons were conducted on the Part B results between the ingroup and the self conditions, as well as between the outgroup and the self conditions. A two-way MANOVA comprising subject groups and experimental conditions was performed on the 16 items to provide the context for evaluating the planned comparisons. A significant main effect of the believer/atheist variable was found, as was a main effect of

the condition variable. There was no interaction effect.

Compared to atheists (mean = 3.00), believers had higher extremity scores (mean = 3.39), indicating their more extreme beliefs and disbeliefs. Central to the polarization prediction was the condition main effect. The overall means were the lowest in the outgroup condition (3.10), higher in the self condition (3.12), and the highest in the ingroup condition (3.37). Planned comparisons showed that the outgroup vs self comparison was non-significant, whereas the ingroup vs self comparison was marginally significant. When the above multivariate analyses were repeated using only the eight most discriminating items, the major change was that the ingroup vs self comparison now became significant at the 0.036 level. Note that the polarization effect in the ingroup condition was uniform across believers and atheists.

Thus only the ingroup condition results were consistent in support of polarization. We then took a closer look at the ingroup condition data to see if the polarizations were mediated by the prior perceptual extremization of the ingroup norm. We did this by comparing the ingroup estimations with the self responses obtained in Part A (see lower panel, Table 3). The comparisons were made in the context of a two-way MANOVA, which showed a significant interaction effect. In view of this, main effects were not analyzed and the ingroup vs self comparison was carried out for believers and atheists separately. For be-

lievers, the comparison was marginally significant and in the unexpected direction: the multivariate mean was smaller in the ingroup (2.93) than in the self (3.26) condition. For atheists, the comparison was significant and in the expected direction. The significant atheist result, but not the believer result, was replicated in the 8-item analysis. Thus, although both atheists and believers polarized their beliefs in the ingroup condition, only the atheists appeared to do this via the perceptual extremization of the ingroup norm. There was no evidence of ingroup extremization for believers. Their ingroup estimation was actually less extreme than the self mean, hence their subsequent belief polarization in Part B must be due to processes other than ingroup extremization.

To make fuller sense of the results, let us step back and consider what the ingroup condition might have entailed. This condition should, as intended, have heightened intergroup comparisons and the follow-on social identity. It might also have heightened an interpersonal comparison between self and other ingroup members, and as a result, the concern for personal identity within the group. At this point, we can apply our self-concept model to the results.

Ideologically, the atheists was a negative group in the sense that they had no unique beliefs of their own, and held only the negation of Christian beliefs. This is indicated by the fact that only one of the questionnaire items (item 2) was a positively atheist belief (i.e., believed by atheists and disbelieved by believers). At the time of the study, their group position was less clearly articulated than that of the believers and hence membership might not be very self-concept enhancing. Their atheist social identity was rather vulnerable and it seemed probable that, to safeguard their self-concepts, emphasis was placed on the social identity component. They therefore extremized the ingroup position to achieve group distinctiveness, and through this to enhance their self-concepts.

In comparison, the believers had a more articulated ideology and a more cohesively organized group in which membership provided meaning and a secure social identity.

Ingroup extremization for securing the social identity was unnecessary, and so the personal identity was more likely to become the avenue for self-concept enhancement. In this situation, individuals might extremize their own personal position relative to the perceived group prototype, as they strived to be *individually* as good as, or better than, their ingroup norm. This would explain why in Part A, the self mean was higher than the ingroup mean. Likewise, the Part B polarization results in the ingroup condition might be explained by the same individualistic desire to better the self relative to ingroup members, without recourse to self-categorization theory. This is consistent with Reid and Sumiga's (1984) conclusion that subjects who polarized their attitudes when forewarned of a within-group debate were responding as individuals motivated to enhance their personal identities, and also with Wallach and Wing's (1968) findings as well as with Codol's (1975) intragroup differentiation model, both of which recognize the 'first among peers' motive.

To summarize, it seems probable that belief polarization may be motivated by two different avenues for self-concept enhancement. The atheists extremized their ingroup, possibly as a means of securing and enhancing their social identity (and conformed to this extremized norm when later asked to respond individually), whereas the believers focused on the enhancement of the personal identity and polarized their beliefs accordingly.

Conclusion

Intergroup behaviour is a research domain shared by psychology and other social sciences. Psychologists can make a unique and useful contribution by probing and *inter-relating* the relevant perceptual, cognitive and motivational processes with due regard to the concrete situation.

Social identity theory is about the best social psychological 'theory' on intergroup behaviour that has emerged since Sherif's classical field experiments in the 1940s (see also Brown, 1986). It illustrates both the continuity and discontinuity of relevant perceptual-cognitive processes from non-intergroup to intergroup settings. More im-

portantly perhaps, it attempts to articulate on behalf of disadvantaged group members the breadth and depth of human ingenuity in the pursuit of a positive social identity and how this *may* lead to group-based social movement. It not only has the potential of linking general psychology to social psychology but also social psychology to other disciplines concerned with social change.

However, the theory is not without limitations. In its present form, it is ill-suited to the 'brighter', cooperative side of intergroup relations (Ng & Cram, 1986). It underrepresents power and dominant groups (Ng, 1982), and does not cover those stages in an intergroup relation when the social identity of a group has become so precarious that it no longer serves any self-concept function (Ng & Cram, 1988, experiment 2).

Finally, the notion of social identity and its input to the self-concept are in urgent need of a clearer and more exhaustive analysis. In as much as a person is part of a group, the group is only part of the person's self-concept. Here, our own contribution has been the idea of the functional mutability of personal and social identities both serving the master self-concept. There are no doubt various issues in need of examination. For example, in any given situation, what determines which identity component will serve as the avenue for self-concept enhancement? Would people strive for endless positive evaluation, or would they settle for a realistic range, sit tight on it, and react only against potential threats (Ng, 1978, 1981)? Why would people on occasions prefer a negative identity to no identity at all? Is this due to the press for distinctiveness, or for cognitive clarity, or does it reflect the desire of making a personal statement in protest of the existing alignment of categories (Breakwell, 1986)? What dependent measures can one use to sort out these issues (Messick & Mackie, 1989)? What are the roles of language and mass media in the development and diffusion of categories? Despite these various unanswered issues, I would like to think that the self-concept will surge ahead in intergroup research and in social psychology generally. After all, when

William James (1890) wrote *The Principles of Psychology* not so long ago, he devoted the second longest chapter to the self.

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