Social categorization and intergroup behaviour*

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Résumé

Le but des études était de déterminer les effets de la catégorisation sociale sur le comportement inter-groupe, quand, dans la situation inter-groupe, on ne pouvait incriminer ni des calculs d'intérêt individuel ni des attitudes hostiles préexistantes en ce qui concerne le comportement discriminatoire vis-à-vis d'un groupe extérieur. Ces conditions étaient remplies dans le plan expérimental. La première série d'expériences a démonstré que les sujets favorisaient leur propre groupe dans la distribution de récompenses et de pénalités dans une situation dans laquelle seule le variable de classifications très peu importantes distinguait entre le propre groupe et le groupe extérieur. La deuxième série d'expériences a montré que: 1) le profit commun maximal indépendant de l'appartenance au groupe n'influençait guère la manière dans laquelle les sujets distribuaient des récompenses financières; 2) des profits maximaux pour le propre

Zusammenfassung

Ziel dieser Untersuchungen war es, die Auswirkungen sozialer Kategorisierungen auf Zwischengruppenverhalten in Bedingungen zu analysieren, in denen weder individuelle Interessen noch vorher bestehende feindliche Einstellungen die Ursache für diskriminierende Verhaltensweisen gegenüber Fremdgruppen sein können. Diese Bedingungen wurden durch den Versuchsaufbau realisiert. In einer Reihe von Experimenten konnte gezeigt werden, daß die Vpn bei der Verteilung von Belohnungen und Strafen die Eigengruppe begünstigten, obwohl nur relativ unbedeutende Klassifikationen die Eigengruppe und die Fremdgruppe unterschieden. In weiteren Experimenten wurde ermittelt, daß 1) maximaler Gewinn, der in keinem Zusammenhang mit Gruppenzugehörigkeit stand, keinen signifikanten Einfluß auf die Art der Verteilung monetärer Belohnungen hatte; 2) maximaler Gewinn der Eigengruppe dagegen die

* This study was supported in part by a grant to the first author from The James Marshall Fund. We are grateful to our colleagues of the Transnational Group on the Dynamics of Conflict, particularly to Morton Deutsch and Serge Moscovici, for many helpful discussions; and also, particularly to Harold Kelley and Gerald Shure, for facilitating the allocation of some of the resources of the Group to the support of the study.

group *influençaient* la distribution des récompenses; 3) l'effet le plus prononcé sur la distribution des récompenses était dû aux efforts du sujet d'obtenir une différence maximale entre son groupe et le groupe extérieur, même au prix du sacrifice d'autres avantages 'objectifs'. Le plan et les résultats sont discutés théoriquement dans le cadre des normes et valeurs sociales, et particulièrement en relation avec une norme 'générique' de comportement envers le groupe extérieur qui prévaut dans certaines sociétés.

Verteilung der Belohnungen beeinflußte; 3) der größte Unterschied bei der Verteilung von Belohnungen durch den Versuch der Vpn zu Stande kam, eine möglichst große Differenz zwischen Eigengruppe und Fremdgruppe herzustellen, selbst um den Preis des Verlustes anderer 'objektiver' Vorteile.

Aufbau und Resultate der Untersuchung werden unter Verwendung der theoretischen Konzepte 'soziale Normen und Erwartungen' diskutiert, besonders aber hinsichtlich einer allgemeinen Norm in manchen Gesellschaften für das Verhalten von Fremdgruppen.

Abstract

The aim of the studies was to assess the effetcs of social categorization on intergroup behaviour when, in the intergroup situation, neither calculations of individual interest nor previously existing attitudes of hostility could have been said to have determined discriminative behaviour against an outgroup. These conditions were satisfied in the experimental design. In the first series of experiments, it was found that the subjects favoured their own group in the distribution of real rewards and penalities in a situation in which nothing but the variable of fairly irrelevant classification distinguished between the ingroup and the outgroup. In the second series of experiments it was found that: 1) maximum joint profit independent of group membership did not affect significantly the manner in which the subjects divided real pecuniary rewards; 2) maximum profit for own group did affect the distribution of rewards; 3) the clearest effect on the distribution of rewards was due to the subjects' attempt to achieve a maximum difference *between the ingroup and the outgroup even at the price of sacrificing other 'objective' advantages.*

The design and the results of the study are theoretically discussed within the framework of social norms and expectations and particularly in relation to a 'generic' norm of outgroup behaviour prevalent in some societies.

The present paper describes the first experiments of a continuing research programme the aim of which is to elucidate the role played in intergroup behaviour by processes of social categorization. Intergroup behaviour has been studied in the context and as a function of variables deriving from conflict, competition, co-

operation, the nature of personal interaction within and between groups, ingroup and outgroup structure, the position of individuals in groups, their personalities, etc. Inherent in all these studies is the notion that, by definition, there can be no intergroup behaviour without the relevant aspects of the social environment having been categorised in terms of whatever may be the pertinent social criteria for the lines of division of people into 'us' and 'them', into ingroups and outgroups. The main problem to which the present and the subsequent studies address themselves can be stated as follows: can the very act of social categorization, as far as it can be identified and isolated from other variables, lead – under certain conditions – to intergroup behaviour which discriminates against the outgroup and favours the ingroup? What are the base-line conditions in which this differential intergroup behaviour can be expected to occur?

The answers to these questions cannot be assumed *a priori* to be 'universal'; they can acquire meaning only against the social background which provides the canvass for their study. Their previous neglect is understandable: as already stated, in the analysis of 'real life' situations and of those created in the laboratory, the process of categorization into groups is taken for granted from the outset as the defining criterion of everything that follows. It is, however, possible that certain societies create, or contribute to, what might be called a 'generic' outgroup attitude (Tajfel, 1970); in other words, that norms, values and expectations present in their modes of socialization and education foster or reinforce a tendency to behave differentially towards outgroups and ingroups even when such behaviour has no 'utilitarian' value to the individual or to his group, and even when a particular categorization has very little meaning in terms of the emotional investment that it represents and in terms of differences between groups on which it is based. Much of the work in social psychology on the adaptive cognitive functions of articulating the social world in terms of clear-cut categories is consonant with this assumption (Allport, 1954; Campbell, 1967; Tajfel, 1969).

The experimental studies of intergroup conflict and of its effects on behaviour are few and far between (cf. Doise, 1970 for a recent review). Those that do exist (such as Sherif and Sherif, 1953; Sherif et al., 1961; Blake and Mouton, 1962; Bass and Duntemann, 1965) show how easy it is to create discriminatory behaviour and to modify the ingroup-outgroup perceptions of the subjects by placing them even in short-lived competitive intergroup situations. But in the short history of experimental studies of intergroup relations there are insistent indications that competition is not a *necessary* condition for creating discrimination between the ingroup and the outgroup. For example, Ferguson and Kelley (1964) were able to show that, in the absence of competition, the Ss tended to evaluate more favourably the performance of the ingroup than that of the outgroup.

This phenomenon was investigated in more detail in two recent studies (Rabbie and Wilkens, 1968; Rabbie and Horwitz, 1969). The authors' main hypothesis was that differential evaluations of the ingroup and of the outgroup would occur only when there was 'anticipation of future interaction' between and within the groups. In order to test this, both studies included control conditions in which the Ss, who did not know each other previously and had hardly interacted during the experiments, were given to understand that there would be no future interaction between them as a group in the course of the experiment. Ss in other conditions knew that they would share a situation binding them together as a group in 'common fate' or that they would undertake as a group a common task. In order to isolate the effects of anticipation of future interaction the experimenters also attempted to control the variable of competition, though their success in doing so in the Rabbie and Wilkens study seems rather doubtful. The results showed (again, rather ambiguously in the earlier study) that it was the anticipation of future interaction which determined bias in the Ss evaluations of their own and of other groups. The authors added: 'Group classification per se appears to be insufficient to produce discriminatory evaluations' (Rabbie and Horwitz, 1969, p. 272).

In order to place these results in the wider context with which we are concerned, it will be useful to discuss briefly some aspects of the experimental procedures. The control conditions in both experiments in which no intergroup differentiation occurred looked as follows: a few perfect strangers were assigned by the experimenter, in a manner which was explicitly made random, to sit in groups of three or four at two separate tables. Nothing much happened to them. After a short time the screens separating the two tables were removed, each person introduced himself briefly, and each was asked to rate all the others on a number of attributes. Not surprisingly, there was no trace of intergroup differentiation. As soon as anything occurred which provided some sort of a criterion to the Ss for classifying themselves into an ingroup and an outgroup (i.e., in the experimental conditions in both experiments), intergroup differentiation did take place.

Thus, Rabbie's control conditions provide a useful guideline for tracing a baseline at which there is no reason whatever why differential intergroup behaviour should be expected to occur. Nothing in the manner adopted by the experimenter to classify the Ss, or in what happened subsequently, made the quality of 'groupness' relevant to the situation. Nothing occurred that made the situation pertinent in any way to the social and cultural norms that normally guide intergroup behaviour. On the contrary, judging the attributes of a few unknown, live and concrete individuals solely on the basis of where they sat would have been just about as sensible as doing the same to people sitting on the same and opposite benches in the compartment of a train. The 'interdependence of fate' in the other conditions

of the experiments did create 'groupness' and led to differentiation in which anticipation of future interaction may or may not have played a part.

We have been considering Rabbie's studies against the background of social norms and expectations that his Ss may have found pertinent as a guide to their behaviour in the social situations in which they found themselves. It is from the same viewpoint that we consider the purpose and the design of the present experiments. Social conduct is powerfully moulded, at least in our own societies, by conceptualisations of social causality in which inferences about interests, motives, intuitions, actions, and attributes of groups and of individuals are structured in terms of criss-crossing categorizations of the social world into a variety of ingroups and outgroups (Tajfel, 1969). Sometimes these inferences are a direct consequence of the 'objective' determinants of intergroup conflict and competition (as in conflicts to which Coser (1956) refers as 'rational'); sometimes they are related to attitudes and behaviour towards outgroups which serve a 'psychological' function (Coser's 'irrational conflict'); most often these two variants of intergroup conflict stand in intricate interdependence in which they reinforce one another. But this two-fold classification fails to take into account another aspect of intergroup relations which is their permanent feature. A network of intergroup categorizations is omnipresent in the social environment; it enters into our socialization and education all the way from 'teams' and 'team spirit' in the primary and secondary education through teenage groupings of all kinds to social, national, racial, ethnic, religious or age groups.

An important cognitive consequence of this pervasiveness is that the articulation of an individual's social world in terms of its categorization into groups becomes a guide for his conduct in situations to which some criteria of intergroup division can be meaningfully applied. ('Meaningful' need not be 'rational'.) An undifferentiated social environment makes very little sense and provides no guidelines for action. Whenever alternative guidelines for action are lacking, unclear or confusing, and some form of intergroup categorization can be used, it will give order and coherence to the social situation while at the same time enabling the individual to act in a way which has been sanctioned as 'appropriate' in many other situations. This is an aspect of intergroup conduct which is not reducible to either of the two large classes of intergroup conflict just mentioned; but it is present in all intergroup situations. The present experiments are designed to show that it can, *on its own,* determine differential intergroup behaviour.

In order to do this, several criteria had to be fulfilled in the experimental procedures. They can be described as follows:

1. There should be no face-to-face interaction whatever between the Ss, either in the ingroup or in the outgroup or between the groups.

2. Complete anonymity of group membership should be preserved.
3. There should be no instrumental or rational link between the criteria for intergroup categorization and the nature of ingroup and outgroup responses requested from the subjects.
4. The responses should not represent any utilitarian value to the subject making them.
5. A strategy of responding in terms of intergroup differentiation (i.e., favouring the ingroup and detrimental to the outgroup) should be in competition with a strategy based on other more 'rational' and 'utilitarian' principles, such as obtaining maximum benefit for all. A further step in this direction would be to oppose a strategy of maximum material benefit to the ingroup to one in which the group gains less than it could, but *more* than the outgroup.
6. Last but not least, the response should be made as important as possible to the Ss. They should consist of real decisions about the distribution of concrete rewards (and/or penalties) to others rather than of some form of evaluation of others.

These criteria were fulfilled in the experiments to be described. The design of the second experiment arose out of the results of the first.

Experiment 1

This experiment was designed to test a preliminary and more limited, hypothesis: that in a situation fulfilling the criteria just mentioned, and in which the Ss were provided with an intergroup categorization that had a value connotation to them, they would engage in discriminatory outgroup behaviour. This outgroup behaviour should be significantly more marked than in a situation in which the intergroup categorization did not have an explicit value connotation.

Design and procedure

The experiment consisted of two parts. In the first, an intergroup categorization was induced; in the second, the effects of this categorization on intergroup behaviour were assessed.

Part 1

64 Ss aged 14 to 15, all male pupils of a state ('comprehensive') school in a suburb of Bristol were tested in eight groups of 8 Ss. They all knew each other well within

each group, as they came from the same class at school. They were requested to estimate varying numbers of dots projected on a screen in successive clisters, at exposure times between 1/16 and 1/2 of a second. After three practice presentations, 40 clusters were projected for judgement. After each presentation of a cluster each S wrote his estimates on a previously prepared answer sheet.

Experimental conditions

1. 'Neutral' condition: when the judgements were completed, the Ss were told by E that in judgements of this kind some people consistently tend to overestimate the numbers of dots projected and some consistently to underestimate them, but that this over- and underestimation does not relate in any way to accuracy of judgements. Four groups of eight Ss each were assigned to this condition.

2. 'Value' condition: after the completion of judgements, the Ss were told by E that in judgements of this kind some people are consistently more accurate than others. Four groups of eight Ss each were assigned to this condition.

Part II

While one E was ostentatiously marking the answer sheets which were returned to him, another told the Ss that we were also interested in completely different kinds of judgements and were going to take advantage of their presence in order to investigate these as well. For purposes of convenience, they were going to be divided into two groups for making these judgements.

1. In the 'neutral' condition, the Ss were told that one group would consist of those for whom the total number of guessed dots were the four highest, and the other of those four whose total number of guesses were the lowest.

2. In the 'value' condition, the Ss were told that one group would consist of those who displayed better accuracy in their judgements, and the other of those whose accuracy was less good.

In fact, the Ss were assigned randomly to each of the groups, half to under- and half to overestimators in the neutral condition, half to better and half to worse accuracy in the value condition. Thus the design was as follows:

Table 1. *Design of Experiment 1*

	Value condition		*Neutral condition*	
	Better accuracy (BA)	Worse accuracy (WA)	Overestimators (OE)	Underestimators (UE)
N	16	16	16	16

No predictions were made about the possible differences in behaviour between the subgroups within each of the two conditions.

Instructions followed about the nature of the forthcoming task. The Ss were told that it would consist of giving rewards and penalties in real money to others. However, they would not know the identity of the individuals to whom they would be assigning these rewards and penalties since everyone would be given code numbers. They would be taken to another room one by one and given information as to which group they were in. Once in the other room, they were to work on their own in separate cubicles. In each cubicle they would find a booklet and a pencil. The booklet, which contained 18 sets of ordered numbers, one to a page, was explained to the Ss. It is described below in detail.

It was stressed that on no occasion would Ss be rewarding or penalising themselves. They would always be allotting money to others. At the end of the task, each would be brought back into the first room and each would receive the amount of money that the others had awarded him. They were told that, if by chance anyone had been allotted more penalties than rewards, he would be given a standard small sum of money for taking part in the experiment. The value of each point they were awarding was 1/10 of a penny. Two examples of matrices, not used in the experiments, were shown on the blackboard, and the nature of various choices explained to the Ss.

After the instructions had been given and questions answered, the second E announced that he had finished marking the answer sheets. The Ss were then led off individually to their cubicles in order to fill out their booklets.

The Matrices

Every page in the booklet contained one matrix. A matrix consisted of 14 boxes, each contaning two numbers. On each matrix, an S was awarding money to other Ss. The top row of numbers within the boxes were the rewards and penalties to be awarded to one S, and the bottom row for another. Each row was labelled: 'these are rewards and penalties for member Number (code numbers inserted here) of your group', or, 'of the other group'. Ss had to indicate their choices by ticking one box per matrix. On the cover of each booklet and at the top of each page was written: 'Booklet for member of the (Ss group identification inserted here) group'.

The six matrices used in the experiment can be found in Table 2.

Table 2. *Matrices in Experiment 1*

A	*Matrix 1*	–19	–16	–13	–10	–7	–4	–1	0	1	2	3	4	5	6
		6	5	4	3	2	1	0	–1	–4	–7	–10	–13	–16	–19
	Matrix 2	12	10	8	6	4	2	0	–1	–5	–9	–13	–17	–21	–25
		–25	–21	–17	–13	–9	–5	–1	0	2	4	6	8	10	12
B	*Matrix 3*	1	2	3	4	5	6	7	8	9	10	11	12	13	14
		14	13	12	11	10	9	8	7	6	5	4	3	2	1
	Matrix 4	18	17	16	15	14	13	12	11	10	9	8	7	6	5
		5	6	7	8	9	10	11	12	13	14	15	16	17	18
C	*Matrix 5*	–14	–12	–10	–8	–6	–4	–2	–1	3	7	11	1 5	19	23
		23	19	15	11	7	3	–1	–2	–4	–6	–8	–10	–12	–14
	Matrix 6	17	14	11	8	5	2	–1	–2	–3	–4	–5	–6	–7	–8
		–8	–7	–6	–5	–4	–3	–2	–1	2	5	8	11	14	17

The nature of choices

Each matrix appeared three times per booklet, one for each type of choice:

1. Ingroup (I) choices: both top and bottom rows stood for rewards and penalties to be awarded respectively to one member of Ss own group; i.e., Ss were choosing for two members of their own group other than themselves.

2. Outgroup (O) choices: both top and bottom rows stood for rewards and penalties, each respectively for one member of the other group; i.e., Ss were choosing for two members of the outgroup.

3. Intergroup 'differential' (D) choices: one row consisted of rewards and penalties to be awarded to an ingroup member, and the other to an outgroup member. The top and bottom positions of ingroup and outgroup members were randomised across matrices. In D choices therefore the S was choosing for a member of his own group other than himself and a member of the other group.

As can be seen in Table 2, there were three different types of matrices:

Type A (matrices 1 and 2): maximum penalties exceed maximum rewards. Maximum point payoff (MJP) (or minimum joint penalty) and maximum fairness is in the two middle terms of the matrices.

Type B (matrices 3 and 4): no penalties, and joint payoff is constant throughout the matrices. Maximum fairness is in the two middle terms of the matrices.

Type C (matrices 5 and 6): maximum rewards exceed maximum penalties. Maxi-

mum joint payoff (MJP) is at both extremes of the matrices. Maximum fairness is in the two middle terms of the matrices.

The order of the matrices was randomized individually for each booklet.

Results

Analysis of D (intergroup) choices

D choices were scored in terms of ranks from 1 to 14, a score of 14 standing for the choice of the term of the matrix which gave to the member of the ingroup the maximum possible points on that matrix, and 1 for the choice which gave the possible minimum of points to the member of the ingroup. It will be noted that with this manner of scoring the rank of 7.5 represents the maximum fairness of choice in all matrices.

Mean ranks for the four groups and for the three types of matrices are presented in Table 3.

Table 3. *D choices (mean ranks 1-14)*

	BA	WA	OE	UE	TOTAL
Matrices A	9.6	8.9	9.8	8.3	9.1
Matrices B	8.6	9.5	9.5	9.0	9.1
Matrices C	9.4	9.7	9.2	9.1	9.4
Total	9.2	9.3	9.5	8.8	9.2

Differences between groups and between matrices: N.S.
Rank 1: least favourable to own group.
Rank 14: most favourable to own group.

Numbers of Ss who favour own group in D choices

Groups	BA	WA	OE	UE
	14	14	11	15

There are no significant differences either between the two experimental conditions or between the four groups. A one-sample 't' test was used to determine whether the 16 individual mean scores in each group were significantly different from the point of fairness (7.5). All groups were significantly above 7.5 ($p < .01$, 2-tailed).

Table 3 also shows the numbers of Ss within each group whose main D choice score was above 7.5, i.e. who favoured members of their ingroups.

These frequencies are significant at $p < .001$, 2-tailed, for three out of the four groups; the results for the OE group are not significant. The total number for each condition (value and neutral) is highly significant ($p < .002$, 2-tailed), and so is the overall total of 54 out of 64 Ss.

Comparison of D, I and O choices

The conclusion that the Ss favour their ingroups in the D choices must be based not only on the evidence that this behaviour is taking place in these intergroup choices, but also on comparison with the choices in which the intergroup bias is not involved. Thus, the hypothesis in comparing the D choices with the I (ingroup) and the O (outgroup) choices was that the latter two types of choice would be more equitable (i.e., nearer to the middle in all the matrices).

The problem in comparing I and O choices with D choices is that any straight comparison based on scores of 1 to 14 is unsatisfactory by itself. In a D choice, the difference between a score of, say, 1 and a score of 14 is clear. This is not so in I and O choices. In fact, the scores of 1 and 14 are equivalent from the point of view of favouring *a* member of the ingroup in the I choices or *a* member of the outgroup in the O choices. Therefore, in order to obtain a valid comparison with the D choices, the I and O choices were scored four times according to four possible strategies of 'favouritism' that the Ss could have used.

1. Simple pattern strategy (*s*).

In this comparison, the scores were obtained taking as a basis the assignment of points to *that* member of the ingroup in the I choices or of the outgroup in the O choices whose position on the matrix was always the same (top or bottom) as was the position of the ingroup member in D choices on the same matrix; in other words, the *s* pattern in the I and O choices is an exact replication of the ingroup-outgroup pattern in the D choices.

2. Inverted pattern strategy (*i*)

The basis for the scoring is exactly opposite to the one above and to that in the D choices; so that if in the D choices on the same matrix the ingroup member was represented by the top row, the basis for scoring is the ingroup member in the I choices or the outgroup member in the O choices represented by the bottom row, and vice versa.

3. Top choice strategy (*t*)

In this pattern, the basis for scoring in all matrices are the points assigned to the ingroup member in I choices and outgroup member in O choices represented in each matrix by the top row.

4. Bottom choice strategy (*b*)

In this pattern, the basis for scoring in all matrices are the points assigned to the ingroup member in I choices and the outgroup member in O choices represented in each matrix by the bottom row.

Table 4 shows the mean rank scores of the I and O choices in each group, scored in terms of the four different strategies.

30 of the I and O means out of a possible 32 are significantly different from the D means as assessed by the Wilcoxon matched-pairs signed-ranks test (2-tailed). The striking aspect of the data is that, as distinct from the D choices, the means of the I and O choices are very closely distributed around the point 7.5 of maximum fairness.

It is, however, possible that this close distribution of means of the I and O choices around maximum fairness is a statistical artefact; i.e., that most choices are, in fact, at some distance from the point of fairness but that the symmetry of each matrix around that point led to an approximately equal distribution of choices to its right and to its left. This would obviously be reflected in a mean of choices near to the point of fairness without in any way reflecting a 'fair' strategy on the part of the Ss.

In addition, if this were the case, one could interpret the relative absence of fairness in the D choices as reflecting no more than a certain lack of symmetry in the matrices when these choices were made. The distance of D choices in one direction or another from the central point would not be any more a matter of indifference to the Ss, but – there being no better criterion for decisions – they would act in a manner favouring members of their own group. In this way, social categorization could be conceived not as determining a deliberate strategy of ingroup favouritism but rather as a kind of 'organizing principle' of the D choices which became operative because nothing else was available as a clear guide to conduct.

This possibility can be checked by analysing the degree of extremization of the choices which is defined here as the distance of each choice, independently of its direction, from the central point of each matrix. If the above interpretation of the data were correct, the degree of extremization should be very similar for the I, O and D choices. Table 5 and Fig. 1 show that this is not the case. It can be seen in Fig. 1 that the frequencies of the I and O choices differ drastically from the frequencies of D choices at the points O (maximum fairness) and 6 (maximum extremization); both these differences are highly significant. The three patterns are very similar at all the intervening points where none of the frequency differences are significant. The matrix by matrix analysis of results yields essentially the same

Table 4. *Comparison of mean ranks in the D, I and O choices*

Groups	*D*	*I(s)*	*I(i)*	*I(t)*	*I(b)*	*O(s)*	*O(i)*	*O(t)*	*O(b)*
BA	9.22	7.92**	7.08****	7.67****	7.33****	7.65**	7.35****	7.36****	7.64***
WA	9.35	6.97****	8.03****	7.49****	7.51****	7.67**	7.33****	7.06****	7.94
CE	9.38	8.46	6.54****	7.39**	7.61*	7.22**	7.78***	7.82*	7.18**
UE	8.79	7.67**	7.33****	7.44****	7.56****	7.48****	7.52**	7.75****	7.25****

D – intergroup choice
I – ingroup choice
O – outgroup choice
(s) – simple pattern (identical to D)
(i) – inverted pattern (opposite to D)
(t) – top choices
(b) – bottom choices

* difference from D $p < .05$
** difference from D $p < .025$
*** difference from D $p < .01$
**** difference from D $p < .005$
(all two-tailed)

Table 5. *Mean extremization of choices*

(O = minimum (Fairness); 6 = maximum)
I choices: 1.87
O choices: 1.72
D choices: 2.81

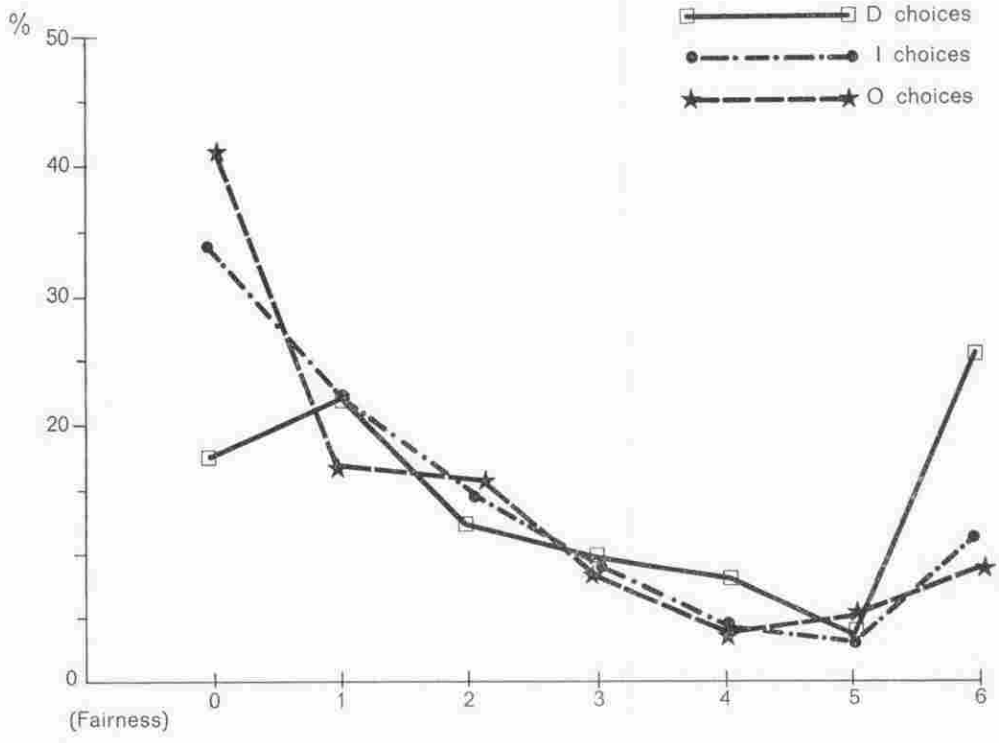

Fig. 1. *Frequency distribution of choices along the matrices*

pattern; some small and non-significant departures from it appear to be due mainly to the presence of negative payoffs in matrices of Types A and C.

We can therefore conclude that the introduction of an ingroup/outgroup dichotomy in the D choices determined a deliberate strategy of making relatively unfair choices favouring the ingroup. Social categorization is not just an 'organizing prin-

ciple' used in the absence of other guideposts; it is capable of creating deliberate discriminatory behaviour.

The hypothesis of the difference between the 'value' and 'neutral' conditions, as used in the experiment, predicting greater favouritism for the ingroup in the value than in the neutral condition, was not supported in the data; but striking evidence emerged that discriminatory intergroup behaviour occurred in *both* conditions. It is this result that led to the design of Experiment 2.

Experiment 2

The purposes of this experiment were:

1. To validate the results of Experiment 1 using a different kind of intergroup categorization.

2. To explore systematically the relative 'pull' exerted on the Ss intergroup decisions by some of the variables which appeared relevant. In Experiment 1 this could not be done, as the matrices differed not only in their types but also in the absolute numbers of points that could be awarded, and because the possibility of using penalties (awarding negative points) introduced a complicating variable.

The variables investigated in Experiment 2 were:

1. MJP (maximum joint payoff) defined as that choice in a matrix which results in the greatest possible common benefit to the two individuals to whom the choice pertains; i.e. the term of the matrix which corresponds to the highest total number of points that can be awarded.

2. MIP (maximum ingroup payoff) defined as that choice in a matrix which corresponds to the highest number of points that can be awarded to the member of the ingroup.

3. MD (maximum difference in favour of the ingroup) defined as that choice in the matrix which results in the greatest possible difference between points awarded to the two individuals to whom the choice pertains, this difference being in favour of the ingroup member.

In order not to increase unduly the number of matrices and the length of the experimental sessions, the variable of fairness (F) was not manipulated in the present study; its effects will be investigated in further experiments.

Four new matrices were employed in the present experiment. They are presented in Table 6.

Table 6. *Matrices in Experiment 2*

Type A	Matrix 1	19 18 17 16 15 14 13 12 11 10 9 8 7	I O I O	
		1 3 5 7 9 11 13 15 17 19 21 23 25	O I I O	
	Matrix 2	23 22 21 20 19 18 17 16 15 14 13 12 11	I O I O	
		5 7 9 11 13 15 17 19 21 23 25 27 29	O I I O	
		Version $\begin{matrix}\text{I}\\\text{O}\end{matrix}$: MIP and MD opposite to MJP		
		Version $\begin{matrix}\text{I}\\\text{O}\end{matrix}$: MIP, MJP and MD coincide		
Type B	Matrix 3	7 8 9 10 11 12 13 14 15 16 17 18 19	I O I O	
		1 3 5 7 9 11 13 15 17 19 21 23 25	I O I O	
	Matrix 4	11 12 13 14 15 16 17 18 19 20 21 22 23	O I I O	
		5 7 9 11 13 15 17 19 21 23 25 27 29	O I I O	
		Version $\begin{matrix}\text{I}\\\text{O}\end{matrix}$: MIP and MJP opposite to MD		
		Version $\begin{matrix}\text{I}\\\text{O}\end{matrix}$: MIP, MJP and MD coincide		

The essential features of these matrices are as follows:

Matrices Type A (1 and 2): in the O/I version of these matrices (independently of whether O or I are at the top or at the bottom), if O represents choices made for a member of the outgroup and I choices made for a member of the ingroup, MJP, MIP and MD all covary. In other words, there is no conflict between choices in terms of any of these variables, and a choice increasing the value of any one of them automatically increases the value of the two others.

In the I/O version of these matrices, if O represents choices made for a member of the outgroup and I choices made for a member of the ingroup, the value of MJP varies in a direction opposite to that of both MIP and MD, i.e., there is a direct conflict between choices maximizing MJP and choices maximizing MIP and MD.

Matrices Type B (3 and 4): in the O/I version of these matrices, O and I choices having the same meaning as above, MJP, MIP and MD all covary as in the corresponding O/I version of matrices 1 and 2.

In the I/O version of these matrices, the values of MJP and MIP which coincide, vary in the direction opposite to the values of MD; i.e., there is a direct conflict between choices maximizing MD and choices maximizing MJP and MIP.

It will be noted that:

(a) In all matrices, the position of the fairest choice (equal number of points

awarded to both individuals to whom the choice pertains) is kept constant as it corresponds to the middle term of the series.

(b) The same set of numbers is used in different orderings, respectively in matrices 1 and 3 and in matrices 2 and 4.

I/I and O/O versions correspond respectively to choices pertaining to two members of the ingroup and to two members of the outgroup (equivalent to the I and O choices in Experiment 1).

Procedure

48 boys, of the same age and from the same school as those who served in Experiment 1, were Ss in Experiment 2. They were tested in three groups of 16. The procedure was the same for all the groups.

Part I

The criterion for intergroup categorization adopted in this experiment was in terms of an aesthetic preference. 12 coloured slides were chosen, 6 being reproductions of paintings by Klee and 6 by Kandinsky, all of which were fairly abstract. One of the criteria for the selection of reproductions was that the signature of the painter should not be visible on the paintings. The Ss were informed that they would be asked to express their preference between paintings of 'two foreign modern painters, Klee and Kandinsky'. The names of the painters were written on the blackboard. The slides were shown one at a time, in 12 successive pairs and in various combinations, without the Ss being informed which of them were reproductions of Klee and which of Kandinsky; actually, some of the pairs consisted of two reproductions of the same painter. After each pair the Ss were requested to tick their preference on prepared answer sheets either for the first of the pair which was always called A, or the second, B. The answer sheets were then collected, and one E was seen to be scoring them while another was introducing the second part of the experiment.

Part II

The instructions for Part II were similar to those in Experiment 1. The Ss were again informed that we were also interested in 'other kinds of judgements' and that in these judgements we were going to use – for purposes of convenience – the aesthetic preferences expressed in the task just completed. The nature of the choices was explained and again their monetary value was stressed as well as the

fact that on no occasion would an S be awarding money to himself. Two examples of matrices not used in the experiment were given and the meaning of a variety of possible choices was explained.

In each group of 16, half of the Ss were assigned randomly to the 'group preferring Klee' and half to the 'group preferring Kandinsky'. The Ss were led individually to their cubicles in the adjoining room where each was given a booklet of matrices specifying on the first page that he was in a group preferring one or the other painter.

The booklets contained 44 pages, a matrix to each. Each of the four matrices shown in Table 6 was presented eight times; twice each in the O/I, I/O, I/I and O/O versions. For purposes of exact validation of the results of Experiment 1, the matrices 3 and 4 from that experiment (see Table 2) were added to the new matrices and inserted in the booklet, each six times. There were two D (intergroup) choices, two I (ingroup) choices, and two O (outgroup) choices. It will be remembered that the principal feature of both these matrices is that MJP remains constant throughout the series.

The order of presentation of the matrices was randomised for each booklet. The Ss were requested to tick on each page the box which was their choice, and in addition to write out in a prepared space at the bottom of the page the number of points which they were awarding to each of the two individuals. Table 7 reproduces as example a page from one of the booklets.

Table 7. *Example of a page from a booklet*

Booklet for group preferring Klee

These numbers are rewards for:

member no. 74 of Klee group	25	23	21	19	17	15	13	11	9	7	5	3	1
member no. 44 of Kandinsky group	19	18	17	16	15	14	13	12	11	10	9	8	7

Please fill in below details of the box you have just chosen:

Amount

Reward for member 74 of Klee group _____

Reward for member 44 of Kandinsky group _____

Results

a. D (intergroup) choices in new matrices

i. Frequencies of type of response

Numbers of Ss in terms of distributions of their responses in the 16 presentations of the 'new' matrices involving D choices are shown in Table 8. All data are based on 47 Ss, as the responses of one who misunderstood the instructions could not be used.

Table 8

	No. of Ss with majority of responses favouring own group	No. of Ss with equal numbers of both types of responses	No. of Ss with majority of responses favouring other group
	34	4	9
%	72.3	8.5	19.2

ii. Matrices Type A: MJP compared with both MIP and MD combined

The determination of the choices respectively by MJP and by MIP and MD combined was analysed in comparing responses on the versions of the matrices 1 and 2 in which all three covaried (O/I) with the versions in which MJP pulled in a direction opposite to MIP and MD combined (I/O) (see Table 6).

Data were analysed in terms of mean rank distances of choices from the optimal choice for each of the variable or combination of variables considered. Thus, starting with MIP and MD combined, if all Ss choices were in the boxes corresponding to the optimum MIP and MD, the mean rank would be DO; the greater the rank the greater the distance of choices from that optimum. The same method was applied with regard to MJP. Thus, comparing the ranks of choices in the O/I and I/O versions of the same matrices in terms of their distance from the relevant extremes of the matrix provides an assessment of the extent to which the distance of the choices from MIP and MD varied as a function of MJP being completely coincident with them or at the end of the matrix opposite to them. Table 9 sets out the mean rank data for these and for the other variables (discussed below) for which the same type of analysis was applied.

Table 9. *Mean rank distances from optimal choices for variables* *

		Optimal choice for variable: MJP	MIP	MD	Observed values as mean rank distance from the optimum (DO)		
Type A matrices	(1)	0	0	0	4.61	Version	O I
	(2a)	12	0	0	4.85	Version	I O
	(2b)	0	12	12	7.15		
Type B matrices	(3)	0	0	0	4.98	Version	O I
	(4a)	12	0	0	5.62	Version	I O
	(4b)	0	12	12	6.38		
I choices, all matrices	(5)	0	Not applicable	Not applicable	5.41		
O choices, all matrices	(6)	0	Not applicable	Not applicable	6.68		

(1) vs (2a): not sign. (3) vs (4a): $p = .12$ (5) vs (6): $p < .0002$
(1) vs (2b): $p < .001$ (3) vs (4b): $p < .01$ (All tests two-tailed)

* In the table, 0 and 12 stand for optimal choices that could be made for each relevant variable. For example, in (1) and (3) 0 stands for the extreme term of the matrix at which the optima for the three variables coincide; in 2(a) 0 stands for the extreme of the matrix which is optimal for MIP and MD while 12 is the term optimal for MJP which is at the opposite end of the matrix. The observed choices refer in each row to the variables for which the optimum is 0 in that row; mean ranks are counted from 0. 2(a) and 2(b) present twice the data from the same matrices; in the case of 2(a) as the rank distance from the end of the matrix optimal for MIP and MD, and in 2(b) as the rank distance from the opposite end of the matrix, optimal for MJP. The same principle applies to 4(a) and 4(b).

The significance of the differences was assessed by using the Wilcoxon matched-pairs signed-ranks test (2-tailed). It can be concluded that in the matrices Type A choices were determined in a very highly significant manner by the Ss preferential treatment of members of their ingroups, while considerations in terms of joint profit for members of ingroup and outgroup had no significant effect on these choices. This can be restated as follows: moving the position of MIP and MD along the matrix from the point at which it coincides with MJP to the point where it is at the opposite end of the matrix from MJP produces a highly significant mean shift of 2.52 ranks in the direction of maximizing MIP and MD; moving in the same way MJP from its point of coincidence with MIP and MD to a point of

least coincidence determines a non-significant mean shift of 0.24 ranks in the direction of maximizing MJP.

iii. Matrices Type B: MD compared with MJP and MIP combined

The analysis of the results in these two matrices was conducted exactly as in the case of Type A matrices; i.e., mean ranks of choices on the O/I and I/O versions of the matrices were compared in order to determine the pull on the choices of MD, and similarly the MJP and MIP combined. It will be remembered that in the version O/I there was a covariation of all three variables; in the version I/O an increase in the values towards MD was negatively related to an increase in the values towards MJP and MIP combined.

The results can be seen in Table 9. MD alone still exerts a significant pull on the choices; while the effect of MJP and MIP combined does not reach the level of statistical significance. Moving MD from coincidence with, to the opposition to, MJP and MIP combined determines a significant mean shift in the ranks of choices of 1.40; moving MJP and MIP in the same manner determines a non-significant shift of 0.64 ranks.

As distinct from MJP and MD, MIP was not varied independently in this experiment: it was either combined with MJP (in matrices Type B) or with MD (in matrices Type A). Thus, its weight in the determination of choices cannot be directly assessed. An inference of a comparative nature is however possible: an appropriate comparison of 'pulls' within and between matrices shows that MD is a more important determinant of choice than MIP. This is confirmed directly by the results from matrices Type B. In the same way, MIP appears a more important determinant of choice than MJP, but a confirmation of this inference is not available from direct experimental manipulations. Further experiments addressed to this point will be necessary.

b. Ingroup (I) and Outgroup (O) choices

The analysis of these results was guided by a collateral hypothesis derived from the overwhelming general finding in both experiments of differential intergroup behaviour. The hypothesis was that choices affecting two members of the ingroup (I) will be nearer to the point of maximum joint payoff (MJP) than corresponding choices for two members of the outgroup (O). The analysis of results was similar to that described above for intergroup choices; for each of the four matrices (presented twice to each S for I choices and twice for O choices), the rank distance from the point of maximum joint payoff (MJP) was determined. The mean ranks and the results of the statistical analysis can be found in Table 9. The hypothesis was confirmed in the data at a very high level of statistical significance.

c. Validation of results of Experiment 1

It will be remembered that two matrices from Experiment 1 were inserted amongst the new matrices presented in Experiment 2. These were the matrices 3 and 4 from Experiment 1 in which MJP was constant throughout the series. Table 10 presents the results in terms of numbers of Ss displaying various patterns of response, and in terms of mean ranks. The analysis in terms of mean ranks presented in Table 10 was the same as already described for Experiment 1; but only one of the four strategies, corresponding respectively to I(s) and O(s) in Table 4, was used for comparing the I and O choices with the D choices. For comparison with other

Table 10. *Matrices 3 and 4 from Experiment 1 used in Experiment 2*

Matrix	No. of Ss favouring own group	Fair	No. of Ss favouring other group	
1/14 - 14/1	25	5	17	Not sign.
5/18 - 18/5	33	3	11	$p < .001$
Both	32	2	13	$p < .001$

Mean Ranks

	D choices	*I choices*	*O choices*
1/14 - 14/1	5.36 (8.64)	6.37 (7.63) Diff. from D $p = .02$	6.24 (7.76) Diff. from D $p = .02$
5/18 - 18/5	4.83 (9.17)	6.46 (7.54) Diff. from D $p = .0007$	6.38 (7.62) Diff. from D $p = .0002$

results in Experiment 2, the rank scores were in terms of distance from the MJP point which was scored as DO. The figures in brackets show the scores recalculated on the same basis as in Experiment 1 (see Table 4). It will be seen that they are virtually identical in both experiments, for D choices as well as for the I and the O choices.

In sharp distinction from the results on the 'new' matrices, there is virtually no difference here between the rank distances of the I and the O choices. This is consistent both with the hypothesis and the results relating to the I and O choices in the 'new' matrices. As MJP was constant throughout these two 'old' matrices, the hypothesis of intergroup differential behaviour provides no basis for expecting any differences between the I and the O choices distance from the point of MJP.

d. Additional results

Experiment 2 was preceded by a pilot experiment. Despite the fact that there were some differences in procedure between the pilot and the main experiment, the results were similar in all essentials. Therefore it was thought worthwhile to present the results of the pilot as a validating replication of the main study. The differences in procedure were as follows:

1. 14 subjects (tested in one group) took part in the pilot experiment. They were of the same age group as in the main experiment. Ten of them were boys and four were girls. Only the results from boys were presented below, though the girls show the same tendencies of response. Thus, the procedure provides, as distinct from the main experiment, an intergroup situation in the presence of the opposite sex.

2. The same 'new' matrices were presented as in the main experiment but without insertion of the two 'old' matrices in the booklet.

3. The I/O and O/I versions of the D matrices were presented once each and not twice as in the main experiment.

4. Consequent to (2) and (3) above, the booklets consisted of 24 matrices and not of 44 as in the main experiment.

Table 11. *Mean rank distances from optimal choices for variables* * (Pilot experiment)

		MJP	MIP	MD		
Type A matrices	(1)	0	0	0	2.25	Version O/I
	(2a)	12	0	0	3.55	Version I/O
	(2b)	0	12	12	8.45	
Type B matrices	(3)	0	0	0	2.80	Version O/I
	(4a)	12	12	0	4.80	Version I/O
	(4b))	0	0	12	7.20	
I choices, all matrices	(5)	0	not applicable	not applicable	4.42	
O choices, all matrices	(6)	0	not applicable	not applicable	6.79	
	(1) vs (2a): not sign. (1) vs (2b): $p < .005$		(3) vs (4a): not sign. (3) vs (4b): $p < .005$		(5) vs (6): $p < .01$	

* For explanation see Table 9.

Table 11 summarises the results in terms of mean rank distances for maximal choices in the same way as Table 9 does for the main experiment.

Despite considerable differences from the main experiment in some of the individual means, the general pattern of these results from 10 Ss is fully in accordance with the main experiment. There are the same highly significant differences in mean rank due to the pull exerted by MIP and MD combined, and MD alone, and lack of such differences due to pull exerted by MJP and MIP combined, and by MJP alone. The comparison of the mean distances in ranks from MJP in the I and the O choices shows again the Ss' tendency for making choices nearer to MJP when these choices affect ingroup rather than outgroup members.

Discussion and conclusions

The main finding, confirmed in all three experiments, is clear; in a situation devoid of the usual trappings of ingroup membership and of all the vagaries of interacting with an outgroup, the Ss still act in terms of their ingroup membership and of an intergroup categorization. Their actions are unambiguously directed at favouring the members of their ingroup as against the members of the outgroup. This happens despite the fact that an alternative strategy – acting in terms of the greatest common good – is clearly open to them at a relatively small cost of advantages that would accrue to members of the ingroup. But this is only one part of the story. Two further aspects of the findings are even more important. First, the Ss act in this way in a situation in which their own individual benefit is not affected one way or another. And second, as was shown in Experiment 2 and in the pilot experiment, when the Ss have a choice between acting in terms of maximum utilitarian advantages to all (MJP) combined with maximum utilitarian advantage to members of their own group (MIP) as against having their group *win* on points at the sacrifice of both these advantages, it is the winning that seems more important to them. It is clear from the analysis of the findings that this is a deliberate strategy adopted for their choices, though they are aware of the existence of the alternative strategies. It may be worth mentioning that, in the interval between the two parts of the experimental sessions, several Ss talked to the E about the 'obvious thing to do' – to get as much money as possible out of the situation. It should also be added that, despite the apparent complexity of the procedure deriving from the requirements of a full description of it on paper, the task when concretely faced was easy and simple. This was shown by the fact that out of a total of 126 Ss in all experiments (including the four girls in the pilot) one only misunderstood the instructions.

The same phenomenon of gratuitous discrimination in favour of the ingroup is shown by the results of the ingroup (I) and outgroup (O) choices in Experiment 2 and in the pilot. There was no conflict in these choices, such as there was in half of the versions of the matrices in the intergroup choices, in which one could give more to the outgroup only at the cost of giving less to the ingroup. The obvious strategy in these I and O choices would appear to be a simple one: give as much as possible to everybody, i.e., choose in all cases as nearly as possible to MJP. And yet, there are highly significant differences between the two types of choice, in the direction of choosing nearer to MJP in the ingroup than in the outgroup condition. Supporting evidence that this is a deliberate strategy appears in the data from the two 'old' matrices introduced in Experiment 2 where MJP was constant across all choices. In these matrices, the I and O choices are practically identical. One reservation, however, must be made concerning this collateral finding: there is no evidence for it in the remaining matrices (1, 2, 5 and 6; see Table 2) of Experiment 1; i.e., there is no sign of greater nearness in these matrices to MJP in the I than in the O choices. (Though the frequency analysis of extremization does show such a tendency for matrices 5 and 6). But it must be remembered that in all these four matrices penalties in the form of negative numbers were used; therefore, in the O choices this introduced a variable of *taking away* from the outgroup *without* a corresponding advantage to the ingroup which may well have a very different significance from simply *giving less to* the outgroup than to the ingroup.

This discussion of the findings would not be complete without stressing the importance in the determination of choices of the variable of fairness (F) which was not manipulated in the present experiments. *All* the choices in the experiments can be conceived as tending to achieve a compromise between F and other variables; if it had not been so, some of the choices which could have combined all the benefits would have been nearer to the relevant optima than they were found to be. As it is, with some exceptions in the results of the pilot experiment, all choices hover around distances not too far from the point of maximum fairness. Particularly in the choices I and O, in which ingroup–outgroup conflict of interest was not directly involved, the Ss managed to discriminate significantly in favour of the ingroup while at the same time keeping their choices very near to the point of maximum fairness (See Tables 4, 9, 10 and 11). From Fig. 1 it can be seen that in Experiment 1 the frequency of fair choices is the highest of all for choices I and O, while in choices D it takes second place only to those favouring the ingroup. In the Introduction we discussed the importance of the generic 'groupness' norm in the determination of the Ss' behaviour. All our results show that another social norm, that of fairness, is also powerful in guiding their choices and that the pattern of data can best be understood as showing a strategy in which a compromise

between these two norms is achieved whenever possible. This provides two guidelines for further research: first, the relative weight in the choices of the fairness norm will have to be assessed independently; second, its salience in our results may provide an opportunity for interesting cross-cultural comparisons.

It will be clear that we interpret our results in terms of a 'generic' social norm of ingroup-outgroup behaviour which guided the Ss' choices. This was so because they classified the social situation in which they found themselves as one to which this norm was pertinent, in which social categorization *ought* to lead to discriminatory intergroup behaviour rather than to behaviour in terms of alternatives that were offered to them. This interpretation is consonant with an approach to intergroup behaviour recently presented elsewhere (Tajfel, 1969). It must now be considered in relation to other variables that may have exerted their effects on the Ss' behaviour. They are: the 'experimenter effect' (e.g. Rosenthal, 1966), expectation of reciprocity, and anticipation of future interaction.

The experimenter effect can be defined for present purposes as the use of experimental procedures which may have caused the Ss to entertain certain hypotheses as to how the experimenters expected them to behave, and then to conform to these expections. There is no doubt that this was an important aspect of the situation. The term 'group' was used extensively in the instructions to the Ss preceding their choices and on the pages of the booklets of matrices which they found in their cubicles. The experimenter effect is not, however, a concept which presents a theoretical alternative to the interpretation of the findings presented here. The point of the experiments was to activate for the Ss the norm of 'groupness' under certain specified conditions which were described earlier; and thus its use in the procedure was part and parcel of the manipulation of the independent variable. What does seem theoretically important is the fact that a few references to 'groupness' in the instructions were sufficient to release the kind of behaviour that was observed despite its 'non-rational', 'non-instrumental' and 'non-utilitarian' character, despite the flimsy criteria for social categorization that were employed, and despite the possibility of using alternative and in some ways 'better' strategies. The experimenter effect cannot, by definition, be considered here without its collateral, the 'subject effect'. The former effect could have worked within our experimental procedures only through the salience for the Ss of the relevant normative background and of the expectations consequent to it.

Thus, the important theoretical problem is not in the operation of the experimenter effect in the data; it is rather in the articulation and analysis of conditions in which discriminatory intergroup behaviour would *not* take place. A crucial condition follows directly from our earlier discussion about the role of social categorization in intergroup behaviour. The norm of 'groupness' may be expected

to operate when the social world of an individual (at least in our societies) is clearly dichotomized into 'us' and 'them'. The same "objective' differences between people which, instead of having a clear-cut classification superimposed on them, would be perceived as continuously distributed, should not release discriminatory intergroup behaviour. On the level of judgements of simple physical magnitudes a related process has been found to operate in a study by Tajfel and Wilkes (1963). In the case of intergroup behaviour, there are indications from studies conducted at present at Columbia University by Morton Deutsch and his colleagues (in preparation) that differences in the extent of an attribute, which is perceived by the Ss as being continuously distributed amongst a group of people, do not lead to the kind of behaviour found in our experiments even when Ss perceive themselves to be at one of the extremes of the distribution. The effects of intergroup differences being perceived as discontinuous and also the creation of such discontinuities when they are socially or psychologically functional are fundamental to the study of intergroup relations. Their relevance cuts across several social science disciplines; this has been shown recently in social anthropology (LeVine, 1969), sociolinguistics (Fishman, 1968) and sociology (Rex, 1969).

No data are available in the present studies concerning the Ss' expectations about the behaviour of other Ss. Considerations about the effects of 'groupness' just discussed would lead one to expect that the Ss would assume others to behave as they themselves did, and that this assumption would in turn affect their own behaviour. The expectations of the behaviour of others, both before and after the Ss made their own choices, and also as related to the Ss expecting that they themselves would or would not have to make choices, have been analysed in some detail in a study just completed (Doise, Tajfel and Billig, in preparation).

Anticipation of future interaction has already been discussed in relation to Rabbie's work (Rabbie and Wilkens, 1968; Rabbie and Horwitz, 1969). Evidence from these and other studies (e.g. Darley and Berscheid, 1967) shows that anticipation of future interaction within a group tends to increase the attractiveness of the members of the ingroup even when relations with the outgroup are not competitive. This presumably applies to groups in which there has been hardly, if any, personal interaction before the experiments. In our study, the Ss in each of the experimental conditions knew each other well before the experiments. They knew that on return home in their minibus, and later, they would revert to the pattern of their previous interactions which was entirely unrelated to the categorizations used in the experiments; long-standing friends and foes were as likely to have been in the ingroup as in the outgroup. If anything, acrimonious interaction might develop if it came to be known that choices had not been made in terms of MJP – everybody getting as much money as possible out of the experimenters.

It is therefore a fair assumption that if anticipation of future interaction had any effects at all on behaviour during the experiment it could only have been in virtue of the Ss expecting that the odd and transient 'groups' in which they had found themselves for a short while would somehow retain their meaning on return home. And this in turn would only show that the effects of the social categorization created during the experiment managed to survive beyond it. As was the case for the experimenter effect, anticipation of future interaction cannot be, by itself, an explanatory principle. It can acquire the status of an explanation only if it is set in the context of the Ss' view of how they *ought* to have acted in the social situation in which they found themselves.

In conclusion, the crucial results of the study can be simply restated as follows: in a situation in which the Ss' own interests were not involved in their decisions, in which alternative strategies were available that would maximise the total benefits to a group of boys who knew each other well, they acted in a way determined by an *ad hoc* intergroup categorization. We interpreted these results in terms of the functioning of a 'generic' social norm which was perceived by the Ss as relevant to the solution of a problem of social conduct with which they were confronted. There is ample evidence in the data that this was a deliberate strategy which applied even when the Ss' group getting *more* than the outgroup directly conflicted with simple 'material' gain for the ingroup.

These findings may well have far-reaching implications not only because they show some odd side-effects of our modes of socialization and education; they also point to the possibility that discriminatory intergroup behaviour cannot be fully understood if it is considered solely in terms of an 'objective' conflict of interests or in terms of deep-seated motives that it may serve. The most parsimonious explanation of our results seems to rest on considerations which combine (i) the relevant aspects of the normative background of social conduct with (ii) the manner in which this background is seen by the individual to relate to the demands and problems posed by a particular social situation. The crucial aspect of this situation was that it contained a socially derived and discontinuous categorization of people into an ingroup and an outgroup. The theoretical interest of this conjunction of cognitive and normative considerations in our attempts to understand social conduct has been succinctly stated by Claudine Herzlich (1969) in the conclusion to her recent study of the 'social representations' of health and illness: 'Dans cette articulation réciproque de différents "niveaux" des phénomènes psychosociaux – organisation cognitive d'un object social, élaboration de normes de comportement – que l'on a coutume d'étudier séparément, réside à notre avis l'un des intérêts essentiels d'une étude des représentations' (p. 176).

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Название: Социальная категоризация и межгрупповое поведение

Резюме

Целью настоящих исследований было определение влияний социальной категоризации на межгрупповое поведение в случае, когда межгрупповая ситуация не могла быть объяснена ни личными интересами, ни предварительно существовавшей враждебностью, ситуация, которая показывала существование дискриминационного отношения к внешней группе. Данные условия были созданы экспериментально. Первая серия экспериментов показывала, что субъекты отдавали предпочтение своей собственной группе в распределении действительных вознаграждений и взысканий при условиях, когда лишь переменная классификаций относительно малого значения отличала их группу от внешней группы. Вторая серия экспериментов показывала, что: 1) максимальная прибыль, независящая от принадлежности к группе, не влияла на характер распределения финансовых вознаграждений, производимого субъектами; 2) максимальные прибыли своей собственной группы *влияли* на распределение вознаграждений; 3) наиболее сильное влияние на распределение вознаграждений оказывалось усилием, которое проявлял субъект для достижения максимальной разницы между его группой и внешней группой, даже если при этом приходилось отказываться от некоторых 'объективных преимуществ'.

План и результаты этих экспериментов обсуждаются в данной статье в рамках норм и социальных ожиданий, в особенности в связи с 'родовой' нормой отношения к внешней группе, которая преобладает в некоторых обществах.