SOCIAL IDENTITY THEORY

AND

GROUP DIVERSITY:

AN ANALYSIS OF FUNCTIONS OF GROUP IDENTIFICATION

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Sabina Aharpour

Department of Psychology

University of Kent at Canterbury

Abstract

This thesis examines differences between social groups and the relationship between ingroup identification and ingroup bias within the framework of Social Identity Theory. The main goal of our investigation is that of understanding the reason of the variation encountered in studies testing the identification-bias association. While one of the solutions proposed by previous research (Hinkle and Brown, 1990) focuses on group differences on the dimensions of collectivism and relational orientation, our suggestion is that of considering group differences in the functions that drive their group identification. Two functions of group identification emerged – between the others – as meaningful in differentiating between the four groups we tested (Psychology students, football supporters, and trade unionists): A materialistic and self-interested motivation, and a self and social learning one. The second goal of this investigation was to examine the impact of differences of identification functions on intergroup behaviours and on their relationship with ingroup identification. The results of an experimental study showed that in groups where a materialistic function of group identification had been manipulated, group identification led to the display of ingroup favouritism, an "anti-social" intergroup attitude conceptually related to the group's self-serving motivation. Consonant with the hypothesis, such association was not observed for groups in which a socio-emotional function of group identification was manipulated. Moreover, with respect to the correlation between group identification and a "pro-social" intergroup attitude like the intention to cooperate with members of the outgroup, no significant difference emerged between the two conditions where different functions of identification were manipulated. Our examination concludes with an observation of the temporal development of identificaiton function in a specific group and, again, of the changes in the identification-bias association.

The theoretical and practical implications of our approach and findings for Social Identity Theory are discussed and the possibilities for future research are examined.

To my husband Lorne and my parents Mary and Essi:

This work has brought me close to him and far away from them,

but I owe it equally to each of them, their love and encouragement.

Memorandum

The research for this dissertation was conducted while the author was a full-time postgraduate research student at the Department of Psychology at the University of Kent (January 1996 to March 1999).

The theoretical an empirical work herein is the independent work of the author. Intellectual debts are acknowledged in the text. The execution of the studies reported required the physical assistance of other people, but their role was limited to assisting in aspects of the procedure, such as administering questionnaires.

The author has not been award a degree by this or any other university for work included in this thesis.

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Chapter 1

Overview

As social psychologists we are interested in studying the reasons for people's behaviour in relation to others. Tajfel (1978) helped to clarify the kinds of behaviours we might observe when we examine the interactions between two or more people or groups. According to Tajfel we can behave in response to our perception of individuals or as members of one or more groups. Thus Tajfel made a distinction between interpersonal and intergroup behaviour : *"At one extreme (which most probably cannot be found in its "pure form" in "real life") is the interaction between two or more individuals that is fully determined by their interpersonal relationships and individual characteristics, and not at all affected by various social groups or categories to which they respectively belong. The other extreme consists of interactions between two or more individuals (or groups of individuals) which are fully determined by their respective memberships in various social groups or categories, and not at all affected by the interindividual personal relationships between the people involved"* (Tajfel & Turner, 1979, p. 34, emphasis added). It is difficult to estimate the proportion of our everyday life and interactions with other people which can be classified as interpersonal or intergroup. Even if we consider Tajfel's suggestion to interpret these two characteristics as being the extremes of a continuum rather than two completely separate categories, at times we might have the impression than the balance is shifted toward the intergroup side of

the continuum, and other times toward the interpersonal one. For instance, we have an interpersonal interaction with someone we know well and of whom we know personal, individual characteristics. But anytime we meet with someone we do not know in such detail, we are more likely to have a more intergroup interaction. We simply fill in our knowledge of the person with attributes that we associate with the group to which the person belongs, and this simplifies our encounter. Because in many instances we think about others in terms of the groups they belong to, we do the same with ourselves and we define ourselves in terms of the groups we belong to. This is evident for instance if we try to ask ourselves: "who am I" ? We can expect more people to answer this question in terms of some of the groups that define them (I am a student, I am Italian, etc.) rather than in terms of their personal characteristics (I am extrovert, I am selfish, etc.). This is why we, as well as many other social psychologists, chose to study people's behaviour from an intergroup perspective, because many of our everyday encounters with people are driven by our respective social identities.

The understanding of the self concept and of how people construct their identity is a very difficult task and constitutes an area of research in its own rights. However, Tajfel's definition of social identity as "the individual's awareness that she or he belongs to a certain social group together with the evaluative and emotional significance of that membership" (1981, p. 255) contributes to our understanding of the self concept. All the analyses of intergroup behaviours included in this thesis have been conducted from the perspective of Social Identity Theory and therefore rely on the differentiation between individual self and social self. In the second chapter of this thesis we will therefore look at Social Identity Theory. Here we will explain in detail

the main assumptions of the theory and we will review some of the areas that most

benefited from the formulation of Social Identity Theory.

Intergroup behaviour can take many forms; however, one of the most studied aspects of

intergroup behaviour in social psychology concerns conflictual intergroup relationships.

Perhaps because the consequences of such interactions are particularly painful or

because they represent a common experience that most of us wish not to have, social

conflicts have been studied extensively. In particular Social Identity Theory has been

linked with the phenomenon of ingroup bias, which represents those situations where

people differently evaluate their ingroup relative to the outgroup (the ingroup is usually

evaluated more positively). The idea that the more ingroup members identify with an

ingroup, the more they will be motivated to favour their ingroup against an outgroup is

one that has been investigated intensively over the past 15 years, with rather variable

results (e.g. Hinkle and Brown, 1990). One of the goals of this thesis is to investigate

this relationship to see how and when we can predict ingroup bias from group

identification. Our research is fundamentally concerned with reducing ingroup bias as

an attitude that can lead to intergroup conflict.

In Chapter 3 we will examine the contradictory evidence supporting the positive

association between group identification and ingroup bias. We will see how Hinkle and

Brown (1990) explained these mixed results and how their model opened a new

direction of research: The importance of considering the way in which social groups

differ from each other. Previously very little attention has been paid to the kind of group

analysed when making predictions from the perspective of Social Identity Theory.

Therefore, we should not be surprised to see that experiments conducted with one kind

of group report results opposite to the results observed when considering a different

kind of group. Hinkle and Brown based their group taxonomy on the dimensions of collectivism and relational orientation but other perspectives can be taken. For instance, one of the assumptions of Social Identity Theory is that the maintenance of a positive group identity and therefore self esteem is the only driving force toward group identification. After reviewing the evidence supporting this self esteem hypothesis we will introduce the concept of functions of identification following Deaux and colleagues (1995, 1996) and Torres (1996). These authors explain that identification with an ingroup can be driven by motivations other than self esteem and that these differences in motivation are important distinctions between groups that imply differences in the feelings and expression of intergroup conflict. We aim to create a taxonomy of groups linking functions (i.e. motivations) of identification to intergroup behaviour.

In chapter 4 we will assess the validity of the group taxonomy proposed by Hinkle & Brown using a meta-analytic approach. We will find out more about the association between identification and bias, and the variables that mediate such relationship.

In Chapter 5 we attempt to replicate the results of the meta-analysis using an experimental approach. Four of the variables which emerge as significant predictors from the meta-analysis are experimentally manipulated creating kinds of groups that are expected to behave differently.

Then, moving away from the laboratory, in Chapter 6 we examine four specific groups, looking for evidence that they differ in their functions of identification, and that such a difference has an effect on the identification-bias association.

The idea emerging from these studies is that motivations other than self esteem also drive the relationship between identification and intergroup behaviours; if the behaviours are consistent with these motivations. This hypothesis will be tested in

Chapter 7 where two different motivations of identification will be manipulated and the consequent identification and bias levels observed in the two different experimental conditions.

At this point, the focus of attention will shift toward the processes underlying the development of functions of identification over time. In a longitudinal study we will look at the temporal development of the motivations of identification in a group of patients in clinical recovery from various kinds of addiction (Chapter 8). Once more the role of functions of identification as determinants of the identification-bias association will be examined.

In summary the main objectives of this research are as follow:

- To examine the different functions that identification can have in different groups, and to create a group taxonomy on the basis of functions of identification.

- To investigate the impact of different functions of identification on intergroup attitudes and behaviours, and specifically on the relationship between group identification and ingroup bias.

Chapter 2

Twenty years of social identity theory

1. Introduction

In this chapter we will review and evaluate two decades of research on intergroup relations and the concept of social identity as formulated by Tajfel (1978). We start by looking at the reasons that brought about the formulation of this new theory and at the theoretical problems that its introduction was intended to solve. We will see how these promises and objectives have been interpreted by other researchers, and then review many of the theoretical and empirical contributions that have used Social Identity Theory (SIT) to explain some aspects of intergroup relations. In the last part of the chapter, we will introduce the latest theoretical evolution of SIT, Self Categorisation Theory. We conclude by looking at those recently proposed alternatives to SIT which explain intergroup relations and conflict.

2. Assumptions, predictions and goals of social identity theory

Before we analyse the contributions of SIT, we have to consider *how* and *why* social

identity theory initially emerged.

The first formulation of what was originally called the "Bristol theory" can be found in

Tajfel (1972); and later on in Tajfel (1978) and Tajfel and Turner (1979), who proposed

it as a fully developed theory based on four core concepts: *Categorisation*, *Identity*,

Comparison and *Distinctiveness* (see also Brown 1978a) . These were constructs already

long familiar to social psychology, but what was offered as new was the causal

relationship that linked them in a different pattern.

2.1 Why the need for another theory of intergroup relations ?

At the time when Tajfel and his colleagues started to study the possible reasons that

caused intergroup conflict, social psychology was dominated by instrumental

perspectives. Theories such as "Equity Theory" (Walster, Berscheid & Walster, 1976),

"Relative Deprivation" (Stouffer, Schuman, De Vinney, Star & Williams, 1949;

Runcimann, 1966; 1972; Crosby, 1976; Gurr, 1970), "Realistic Conflict Theory" (Sherif

& Sherif, 1953), etc., all explained the emergence of conflict between groups with

respect to some aspect of the material or economic conditions of the groups involved in

the conflict.

Specifically, Social Identity Theory was formulated as a theoretical supplement to

Realistic Conflict Theory (RCT). Social Identity Theory was thought to resolve the

many discrepancies present in the research initially conducted to support RCT which

was at the time a widely accepted explanation for intergroup relations. According to RCT, intergroup behaviour can be predicted on the basis of the objectives and goals (conflicting or superordinate) existing between two groups (Sherif & Sherif, 1953; Sherif, Harvey, White, Hood & Sherif, 1961; Sherif 1966) .

Although Realistic Conflict Theory (RCT) had much empirical support (for a review see Turner 1975, ch.4), Brown (1978a) identified some of the problems affecting the theory.

First, according to RCT, social status could be considered as a scarce resource, and RCT therefore predicts that two groups with different status positions will always experience a conflict of interests because their shared goal - the acquisition of high status - would be incompatible. This situation therefore should lead to ethnocentrism and outgroup derogation every time that a difference in status is encountered between two groups. But, as Tajfel and Turner (1979) and Turner and Brown (1978) pointed out, this is not always the case. There are instances of groups in an inferior status position that accept their situation and do not display any outgroup derogation or conflictual attitudes toward the other group (Milner, 1975; Giles & Powesland, 1976) . This is contrary to RCT predictions.

Second, a knowledge of goal interdependence is not always sufficient or necessary to predict intergroup behaviour (see Brown, 1978a for an examination of relevant evidence). There are other factors that play a role in determining the nature of the intergroup relationship (e.g. the past history of the two groups).

Third, the theory never specifies whether the goal relationship must have a real counterpart in reality or if a consensual perception from the two groups, even if erroneous, would still produce the same intergroup relations. What would happen, for

instance, if the two groups had only the illusion of independent goals, while in reality they are conflicting ? Would RCT make its predictions on the basis of the real goal situation or on the one shared by the groups?

These issues also resulted (e.g. Brown, 1978a), in a major conceptual problem with the theory: the objective situation was seen as causally responsible for group phenomena such as the cohesiveness of the group, or the strength of its boundaries, and also for some psychological group effects like the perception of different group categories, identification with the group, social comparison, etc.. Brown (1978a) reports the following passage from Sherif as a support for this interpretation:

> "Speaking generally, the mere awareness of other groups within the range of designs generates a process of comparison between "us" and the others. This tendency seems to be one of the fundamental facts in the psychology of judgement. In this comparison process, we evaluate and categorise other groupings of people, comparing them with our notion of ourselves, our conception of our place in life and the places of others. The basis for the evaluation is a scheme for defining the scope and character of humanity that has been built into our particular groupings and practised as we pursue our cherished goals". (Sherif, 1966, p. 3)

Whether or not this interpretation was correct or not, is still to be debated; what matters though is that, to Tajfel and his colleagues, something in this causal chain didn't seem right. According to them, how can an assessment of the objective differences between two groups be even perceived before there has been any categorisation or identification process at all? If the two groups do not perceive each other as separate and if group members do not identify themselves as members or their ingroup first, how can they even consider the two groups' goals as superordinate or conflicting ? Moreover, how can RCT account for the fact that there are empirical instances of biased perception even before the introduction of a goal conflict (e.g. Bass & Duntemann, 1963; Kahn and Ryen, 1972) ?

2.2 How social identity theory interpreted intergroup conflict

In reply to all these questions and empirical problems, Tajfel and his colleagues proposed social identity theory , which was successful in bridging some of the empirical lacunae presented by other theories of intergroup conflict. SIT proposes three causally linked cognitive processes: <u>Social categorisation</u> leading to <u>differentiation</u>, and <u>social comparison</u>. In SIT, _Social categorisation_ is a prerequisite of any intergroup perception. Without the cognitive element of categorisation that separates the world into "us" and "them", it makes little sense to expect any perception at an intergroup level. So the first step in the explanation of intergroup conflict is the realisation that individuals must first perceive a specific context as characterised by the presence of two or more groups: the one they do belong to and the one/s they do not belong to.

Tajfel and Wilkes (1963), Campbell (1956), and Davidon (1962) had already established that any categorisation process has an immediate effect: After having been exposed to some sort of categorisation, people tend to overestimate intercategory differences and intracategory similarities when judging both physical and social stimuli[1] (Tajfel, 1969, 1972). So, social categorisation leads to _differentiation_. Differentiation, in turn, implies that some _social comparison_ takes place. In fact, in order to differentiate between two categories, whether they are social or physical categories, it is necessary to engage in some sort of comparison process. We can therefore assume that, when the elements of two social categories are perceived as more different than they really are, the two are in fact compared to each other.

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[1] In the case of social stimuli the intracategory assimilation effect is not as pronounced as the intercategory differentiation effect but this does not affect the present argument (Tajfel & Wilkes, 1963).

At this point a new element is introduced, the <u>social identification</u> process. According to

Tajfel : " social identity is that part of an individual's self-concept which derives from

the knowledge of his membership of a social group (or groups) together with the

significance attached to that membership." (Tajfel, 1981, p. 255). It follows from this

that individuals may be judged on the basis of the value of the group (or groups) they

belong to. Moreover, Tajfel proposed that individuals look for "a positive valued

distinctiveness from other groups" (Tajfel, 1972, p. 3), adding to the identification

process the motivation of a positive self-esteem.

The idea of positive distinctiveness provides the justification for why a simple cognitive

process like categorisation produces a perceptual differentiation in the direction of

favouring the individuals' own group. If categorisation produces differentiation, and

differentiation implies comparison and an evaluation of the elements compared,

individuals will be motivated to emerge as favoured by the comparison process. And the

most effective way of maintaining a positive social identity will be the derogation of the

other element of the comparison: the outgroup. Of course if this derogation of the

outgroup is illegitimate and not shared by the outgroup in question (as it is very likely to

be the case), the natural consequence would be a situation of intergroup conflict.

It is exactly the need for a positive self esteem, acquired via a positive distinctiveness,

that constitutes that motivational element for differentiation which is one of the major

strengths of the whole theory. We can summarise social identity theory by saying that it

predicts that individuals will naturally categorise the social reality distinguishing

between those groups to which they belong and the ones they do not belong to; and that

they will be motivated to compare these groups and to evaluate them in a way that is

favourable to the groups they belong to, and from which they gain a positive identity at the expense of other groups.

Some other corollaries will be added to the theory to give it completeness, but these first basic elements of SIT (social categorisation, differentiation and social comparison, and then social identification and self-esteem motivations) provide a very powerful explanation of intergroup conflict[2].

2.3 The importance of similarity and subjective perception in social identity theory

The processes of social categorisation, differentiation and social comparison imply the perception of the degree of similarity between the two groups . Brown (1978a) especially, frames most of his analysis of intergroup conflict on the idea that intergroup similarity between groups leads to intergroup conflict. According to SIT, positive distinctiveness from other groups enhances social identity and the individual's self esteem. Therefore, if an outgroup shows extreme similarity with the ingroup, ingroup distinctiveness is undermined. Intergroup similarity is thus believed to have the effect of threatening the group identity by affecting its distinctiveness and hence its positivity. As a result, a group should tend to protect itself from too much similarity by derogating the outgroup and eventually engaging in a conflictual relationship[3].

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[2] Intergroup differentiation is obtained by derogating the outgroup and considering it inferior and therefore it is usually considered an experimental operationalization of intergroup conflict, to which it can eventually lead.

[3] In cases where the outgroup does not share the view of the ingroup, considering it illegitimate and/or unjust, the outgroup could react to this view establishing a conflictual situation with which it would hope to restore or improve its condition and the consequent positiveness.

The idea that similarity has aversive effects is of course contrary to the predictions of the similarity-attraction theories (Festinger, 1954; Heider, 1958; Newcomb, 1961). According to these, we use social comparison in order to validate the correctness of our attitudes and judgements, especially in cases when reality does not provide an objective frame of reference. Groups with whom we share some similarities are therefore more likely to support our views and it is also very likely that we "reward" them with our appreciation, as well as feel attracted to them because they give us certainty about ambiguous situations. In his examination of these contrasting predictions, Brown (1978a) first found positive support for both: The results of a field experiment showed that high group similarity seemed to be associated with intergroup conflict, while the results of a laboratory experiment showed that similarity between groups led to the display of intergroup attraction.

To reconcile these contrasting results Brown conducted a second experiment showing that the perception of group goals determines whether similarity will lead to attraction or to conflict. Subjective goal orientation mediated the relationship between similarity and attraction. Similarity was more likely to result in liking for the outgroup in cooperative contexts, but to disliking in competitive contexts. We could say that, in normal or cooperative, non conflictual intergroup situations, maybe the status and boundary situation between two groups is perceived as more stable and therefore, when there is no possibility that one's positive distinctiveness is threatened, similarity leads to attraction. In a competitive context, however, there is the possibility of rediscussing the status and boundaries situations of the groups involved, threatening the groups' distinctiveness, and causing similarity to lead to disliking. In brief, it might be that

similarity has a moderating role between the extent to which the groups' identity is threatened and their liking for the other group.

Whatever the case, it is clear that the concept of intergroup similarity had a central role in Social Identity Theory. We will notice later that most of the directions of research in which SIT has developed in the past twenty years (group homogeneity, overexclusion effect, intergroup contact) are related, one way or the other, to the concept of intergroup similarity.

Another important role of this research was, of course, the role of goal relationships. As mentioned earlier, central to the predictions of RCT is the analysis of goal relationship of the two groups involved: An incompatible goals situation will lead to intergroup conflict, while superordinate goals will lead to intergroup cooperation. Social identity theory emphasises instead how in real life situations objective goals are not always correctly reproduced in individuals' interpretation of the situation. For instance, in Brown's (1978b) analysis of the conflictual relations between different divisions of an aeroplane factory, he finds that "the shop stewards in the factory, despite being aware of their obligation as trade unionists to cooperate with other groups of workers, seemed to see the groups as independent rather than interdependent." (p.225). So despite an interdependent goal situation that would predict a cooperative situation, there was actually a conflictual relationship.

Therefore SIT, by emphasising the importance of group similarity and of the consensus over the status relationship of the groups, encourages social psychology to look at the subjective perceptions of the intergroup context to reach a better understanding of real

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life situations. In this sense SIT initiates a new tradition that considers group phenomena not from a mechanistic and economic perspective but from a more subjective and motivationally based perspective.

2.4 Other corollaries of social identity theory

Together with the main assumptions we have described so far, social identity theory also comprised a series of other postulates.

2.4.1 The interpersonal-intergroup continuum

The first general consideration about social behaviour discussed by Tajfel, was that individuals' behaviour can be described as being either "interpersonal" or "intergroup". These two terms: *interpersonal* and *intergroup* represent the extremes of a continuum so that it would be very difficult to find pure examples of either type. Nevertheless, we can imagine the interpersonal extreme of the continuum to characterise those situations where two people interact with each other thinking in terms of their personal characteristics, like their appearance, their personality traits, skills or similar attributes. On the other hand, intergroup behaviour would describe those situations where two people interact with each other on the basis of their group memberships and of the characteristics associated with the members of such groups. Naturally, social identity is concerned with those situations at the intergroup extreme of the continuum; and having made such a distinction in the area of social psychology is one of the main contributions of the theory. Also implicit in this differentiation is the warning that we should always make sure that group members' perceptions of each other are expressed on an

intergroup basis before applying theoretical explanations that look at the group as a unit

of analysis. Once more, the individuals' perception of the situation is of key importance

in the understanding and solution of conflictual situations.

2.4.2 Identity management strategies and sociostructural variables

So far we have seen that group members use some cognitive and motivational reasons to

compare their ingroup with an outgroup, and that the outcome of such comparison is

important for the maintenance of their positive self esteem. But SIT has now to deal

with another of the problems that affected RCT. How can members of groups

considered inferior deal with the negative self esteem that would seem to be associated

with such membership? And how can they restore a positive self concept? According to

SIT, the answer depends on where the boundaries between groups are along a

continuum of _permeable_ or _impermeable_. Where boundaries are permeable, _social_

mobility is available (Tajfel, 1978). This means that it is possible for <u>individual</u>

members of the inferior group to change their group membership and move to the other

group without obstacle, and so gain a positive self concept via the new group identity. If

the boundaries between groups are impermeable, it means that individual movement

from one group to another is not possible or allowed and the members of the inferior

group, in order to gain a positive self esteem, have to engage in _social change_ activities

(Tajfel, 1978). That is, group members can change the status of their group only acting

together, <u>collectively,</u> to establish new conditions wherein their group can provide them

with a positive social identity.

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There are different strategies that can be used for social change. Using *social creativity* strategies, group members can decide to change the dimensions on which the groups are evaluated so that ingroup evaluation will be positive. Alternatively ingroup members can try to change the values associated with the dimensions used for the evaluations so to alter the norms of evaluation itself. What was negative is reprocessed as a positive feature. Finally, the group can decide to change the outgroup they compare to and rather look at another group against which they are not in such an inferior position[4].

In any event, those situations that are more towards the social change will give rise to more intergroup differentiation than those at the social mobility extreme. In the first case we will have instances of intergroup rather than individual social comparisons. Thus there is a parallel between the social change/social mobility continuum and the intergroup/interpersonal one.

Tajfel also hypothesised that the closer group members perceive they are to the social change extreme of the continuum, "...the more uniformity they will show in their behaviour toward members of the relevant outgroup... (and)...the more they will tend to treat members of the outgroup as undifferentiated items in a unified social category rather than in terms of their individual characteristics." (Tajfel & Turner, 1979, p.36).

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[4] The use of one or another strategy of social change depends on the perception of the status relationship. This can be perceived as *legitimate* or *illegitimate* and *stable* or *unstable*. Different predictions about the intergroup behaviour are provided by social identity theory for each condition formed by crossing these factors (see Brown 1978 for a review of the theory and some of the evidence in this research).

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3. Research evidence on social identity theory

3.1 The minimal group paradigm

It is difficult if not impossible to cite "the" experiment that has confirmed the predictions of social identity theory as a whole, mainly because the predictions of SIT have not been summarised in one research hypothesis. If we really want to squeeze SIT into one single prediction, we could say that: "_pressures to evaluate one's own group positively through in-group/out-group comparison lead social groups to attempt to differentiate themselves from each other_" (Tajfel & Turner, 1979, p. 41). And also that: " _The aim of differentiation is to maintain or achieve superiority over an out-group on some dimensions. Any such act, therefore, is essentially competitive._" (ibid.) . The first indirect confirmation of the validity of SIT was its ability to explain the puzzling results of experiments conducted with the "minimal group paradigm". In a minimal group paradigm, experimental participants are categorised and assigned to groups using a criterion of minimum similarity – for example a trivial preference for a painter or some alleged cognitive style (over/under estimator). Even in these extremely impoverished conditions, research finds that the initial social categorisation results in discriminatory behaviour that favours the ingroup (Tajfel et al., 1971; Billig & Tajfel 1973; Turner, 1978a for a review). Whether the dimension of comparison is money or an evaluative judgement, the results were consistent: People show some level of ingroup bias, meaning that even without an objective reason (e.g. conflictual goals as predicted by RCT) ingroup members still discriminate in favour of their ingroup.

In SIT once participants are aware of the categorisation that has been imposed, they are subject to its cognitive effects. This means that they will perceive greater differences

between members of different groups than between members of the same group. Being

different though, means that certain characteristics are possessed by the two groups to

different degrees, and that therefore one group can be perceived as being better than the

other. Motivated by the need to maintain a positive social identity, participants are then

led to perceive their group as better than the other group and to use this perception

when allocating rewards. This explains why participants favour the member that

belongs to their own category.

However, some results have recently emerged from research using the minimal group

paradigm that SIT is not able so easily to explain. We refer to the positive-negative

asymmetry observed by Mummendey and colleagues (Mummendey, Simon, Dietze,

Grunert, Haeger, Kessler, Lettgen & Shaferhoff. 1992; Otten, Mummendey & Blanz,

1996; Mummendey & Otten 1998). The asymmetry is that when the task of the

experimental subjects is that of allocating negative rather than the more usual positive

resources, punishing rather than rewarding the groups, there is no difference in the way

ingroups and outgroups are treated – i.e. little or no ingroup bias. Both groups are

punished in the same measure as the ingroup member. Such biases re-emerge, but only

when subjects are given very strong motivations to protect their social identity. Otten et

al. (1996), in fact, found support for their aggravation hypothesis, which claimed that:

"under conditions threatening participants' positive social identity[5], in-group

favouritism would increase. This effect was hypothesised for the allocation of both

negative and positive stimuli". Many possible theoretical explanations are given for

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[5] In this study these conditions were operationalized as inferiority in group status, or a group size that represented a minority condition of the ingroup.

these results (Otten, Mummendey & Blanz 1996), and some of these possibilities are currently being tested. One of this explanations, if proved correct, would support the predictions of Social Identity Theory through self categorisation theory. Specifically " The positive function of positive in-group distinctiveness in either positive or negative outcome allocations might also differ because of different levels of abstraction in participants' self-categorisation. [...] Being inevitably confronted with aversive conditions might have weakened the intergroup categorisation and instead caused a feeling of 'common fate'. Accordingly, a higher-order categorisation as "one group of poor participants who are facing an unpleasant experiment" might have arisen" (Otten al. ,1996, p. 579).

However supportive of this hypothesis future research will prove, the general warning is still necessary, that the sort of generalisations that originated from years of positive evidence supporting SIT may be misleading. In this case, categorisation may not imply social discrimination when the allocation of negative stimuli is concerned.

3.2 Explaining variations in ingroup favouritism

Another way to test the validity of social identity theory is by considering the extent to which SIT is successful in predicting ingroup favouritism when particular theoretically relevant factors are varied.

The first evidence in this direction came from Turner (1978a). In an experiment conducted using real groups of undergraduate students that had engaged in a face-to-face discussion task, Turner created a 2x2x2 between subjects design in which participants believed that verbal intelligence was important for them (High importance -

H.I.- due to the fact that the participants in this condition were Science students) or of low importance for them (low importance - L.I.- participants in this condition were Science students). Also, the ingroup and the outgroup were either Similar (students of the same subject) or Dissimilar (ingroup and the outgroup were students of different subjects). And finally groups were told that the differences in status of which they were informed were either fixed (Stable) or flexible (Unstable).

The results showed that participants in the H.I. condition were more biased in their judgement about the quality of the work produced by the groups than the L.I. participants. Also in the Stable conditions similar groups differentiated more than dissimilar groups, "providing illustration that variations in in-group bias can be systematically predicted from the social identity/social comparison theory." (Tajfel & Turner 1979, p. 43).

However, despite Turner's interpretation of these results as supportive of SIT's predictions about the occurrence of ingroup bias, Brown (1984) questions the claim that they show conclusively that divergent effects of similarity are only visible under stable status conditions. In Brown's view, the similarity and stability dimensions are confounded in Turner's experiment. It is an interaction of the two variables that provide support for SIT rather than the claim of differential effects of similarity only in stable conditions. Citing other results from Mummendey and Schreiber (1981), Brown argues that "under unstable conditions similar groups showed more bias in performance evaluations than dissimilar groups, and only among the control groups, which received no information about the nature of the status difference, did dissimilarity elicit more bias than similarity" (p. 615).

3.3 Self esteem

Other experiments were also conducted to test the importance of self esteem as a motivation to discrimination. In order to confirm that it is really the need for positive distinctiveness that drives social comparison and discriminative behaviour, Oakes and Turner (1982) measured the level of self esteem of participants in a minimal group experiment similar to those reported before. They had two experimental conditions: one in which participants were denied the opportunity to display intergroup discrimination; and another in which, in the usual way, participants, after having been categorised, were able to display ingroup bias by discriminating. As expected according to social identity theory, participants who were able to discriminate reported significantly higher levels of self esteem (see also Lemyre & Smith 1984).

However supportive these results might seem, the evidence surrounding the unique motivational role of self esteem is not so strong. Abrams and Hogg (1988), in an attempt to review the state of the self esteem hypothesis, also reported a series of studies contradicting the supporting evidence we have considered so far. Sachdev and Bourhis (1984), for instance, found no evidence for the hypothesis, derived from social identity theory, that "since minority group membership confers a relatively insecure and negative social identity, minorities should show more discrimination and less fairness than majorities" (p.47). Both groups, in fact, showed the same amount of outgroup discrimination, with no effect of their different levels of self esteem. Again, Sachdev and Bourhis (1985, 1987) found that groups with higher stable status show more group discrimination compared to groups with unstable status conditions whose self esteem should be under threat. Other examples of lack of support for the self esteem hypothesis

come from the work conducted by Crocker and her colleagues (Crocker & Schwartz, 1985; Crocker & McGraw, 1985; Crocker et al., 1987). Their research demonstrated that if self esteem has an effect in determining group discrimination, this is very indirect and many other variables can come into play when self esteem is considered (e.g. group status; see Abrams and Hogg, 1988; Hogg & Abrams, 1990; Long & Spears, 1997; Branscombe & Wann, 1996; for a thorough review of the self esteem hypothesis)[6].

4. In what directions has social identity theory developed ?

Thus far, we have described SIT and its explanations for intergroup conflict which in particular overcome some of the problems encountered by alternative theories of intergroup behaviour. We also reviewed some empirical evidence supporting SIT's central statements. But it should also be clear that the success of any theory does not rest on its predictions about a single variable. Social Identity Theory should be rather considered as a more general theory, a new distinct theoretical approach to the study of several of the aspects that characterise intergroup relationships. So if we really want to look at the empirical evidence supporting the theory and to assess the extent of its success in the years since its introduction, we should not just try to test all its implications in one single experiment. We rather have to consider the many areas of social psychology that have been influenced by SIT and that have used its assumptions to predict various aspects of intergroup relations. We will see that the theory has

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[6] We will consider the motivational role of self esteem in more detail elsewhere; for the time being we only wanted to provide a general examination of the research originally conducted to explore the core assumptions of SIT.

developed in many different directions, and that there is a wide variety of research

conducted using SIT predictions. Many of those hypotheses have received some

consensus and empirical support.

4.1 Identity management strategies

A very important aspect of social identity theory deals with the identity management

strategy of inferior status groups whose self esteem is, according to SIT, severely

impaired. By identity management strategies we refer to the different ways in which a

group can try to deal with an unsatisfactory social identity, as social creativity, social

mobility, etc.

The analysis of this type of group is particularly relevant because identification with

inferior status groups might have damaging consequences. If a negative identification

and negative self esteem are internalised by group members, this could negatively affect

people's efforts directed at improving their situation by fighting against disadvantaged

conditions (Clark & Clark, 1947).

In line with SIT predictions about the risks of a negative social identity, researchers

have found (both in laboratory and field experiments) that low-status group members

evaluate their ingroup less favourably than high-status group members (Brown, 1978,

1984; Brown & Wade, 1987; Sachdev and Bourhis, 1985, 1987) and that they identify

less strongly with the ingroup, again compared to high-status group members (Ellemers,

van Knippenberg, de Vries, & Wilke, 1988; Ellemers, van Knippenberg, & Wilke

1990). This happens because identification with a low status group cannot provide to

members a positive self concept. Research in this domain has confirmed many of the

hypotheses derived from SIT. For instance, members of groups with permeable boundaries opt for individual mobility strategies rather than social change. Social change is instead a strategy used more when there is an unstable status relationship between groups (Ellemers et al., 1988; Ellemers et al., 1990). Nevertheless, it was found that stability and legitimacy of the status relationship (usually referred to as sociostructural variables), responsible for determining the choice of identity management strategy, affect only the low status groups; according to these data, high status groups are not affected by those variables although it is still not clear what factors (besides boundaries permeability) affect the choice of members of such groups. This however, contrasts with for instance the results of Caddick (1982) who found that superior group members' evaluations of the outgroup were equally affected, as much as low status group members, by different legitimacy conditions.

Whatever the case, Ellemers, Wilke and van Knippenberg (1993) concentrated on low-status groups and studied simultaneously the three sociostructural variables mentioned before. They conducted two experiments where the permeability of the group boundaries, the stability and legitimacy of the status relationship were artificially manipulated. Participants, 184 students from a professional school for economics and administration in the Netherlands, worked individually on a computer terminal programmed to simulate a group task, while in reality every one was assigned randomly to one of the experimental conditions and worked on his/her own. A series of points was assigned after the completion of a decision making task and the scoring system was designed so to allow the three independent variables to be manipulated. The dependent measures comprised a series of manipulation checks, a measure of the perceived fairness of the group assignment procedure, an identification measure and three

matrices for points allocations. The results supported most of the hypotheses derived from social identity theory. First, subjects expressed less anger and considered the procedure more positively when the status assignment was more legitimate, confirming the hypothesis that a low status would be more acceptable if obtained in a legitimate manner. Second, only in the legitimate condition, subjects used an alternative criterion (changing the dimension used for the evaluation to new more positive ones) in order to raise their ingroup evaluation and social perception. Levels of ingroup identification were significantly higher in the impermeable condition than in the permeable one; also participants in the illegitimate condition were more strongly identified than in the legitimate condition. Finally, a three way interaction revealed that the effect of legitimacy was even stronger when group boundaries were impermeable and group status was unstable. Once more these results confirmed the expectations derived from SIT assumptions.

Supportive results for SIT were also obtained by Sachdev and Bourhis (1985; 1987), who investigated the role of group status, power and salience in determining the levels of ingroup or outgroup favouritism shown by ingroup members. Their research concluded that, in general, all groups show higher ingroup favouritism than outgroup favouritism, but lower status groups show more outgroup favouritism than do high status groups. According to SIT, this would reflect the fact that in these conditions the ingroup cannot provide a positive identity and the outgroup is therefore preferred.

Altogether, these studies have supported the predictions of SIT. But at the same time the conditions necessary for the applicability of SIT's core assumptions increase in number.

New variables, like status, power, group size, perhaps already implicit in Tajfel's formulation, are now explicitly included in the predictions about intergroup relations.

4.2 Group Homogeneity

Another hypothesis that has inspired a number of studies concerns the perceived homogeneity of the ingroup and of the outgroup. As we reported on page 11, SIT predicts that, the more the members of a group perceive the situation in terms of social change, "...the more uniformity they will show in their behaviour toward members of the relevant outgroup...(and)... the more they will tend to treat members of the outgroup as undifferentiated items in a unified social category rather than in terms of their individual characteristics." (Tajfel & Turner, 1979).

Current contrasting explanations of differences in the perception of ingroup and outgroup homogeneity refer to two different models of cognitive category representation: One focusing on familiarity and the use of category exemplars (Linville, Salovey & Fischer, 1986; Linville, Fischer & Salovey, 1989), and the other on the abstraction of information about the groups (Judd & Park, 1988; Park, Judd & Ryan, 1991) as the way of processing and storing categorical information.

According to these kinds of explanations, however, outgroup homogeneity perceptions were predicted, but it was not clear why at times ingroup homogeneity would be perceived as well (Simon, 1992; Simon & Pettigrew, 1990). Social identity theory had the merit of complementing this sort of interpretation by introducing intergroup elements. The three intergroup factors that are believed to influence the intragroup similarity perceptions (ingroup and outgroup in different directions) are: a) the minority

or majority position of the group; b) the relevance of the specific attributes (or dimensions) in question to group members' social identity; c) the stereotypes prevailing in society at large (Simon, 1992).

The way SIT explains the role of majority and minority positions in determining intragroup homogeneity starts from the consideration that usually a numerical inferiority is likely to be associated with error, deviance and /or weakness (Festinger, 1954; Gerard, 1985; Sachdev & Bourhis, 1984; Sherif, 1966). Thus SIT sees a minority position as a threat for minority group members' self esteem, which, nevertheless, can be protected if the group shows a high degree of "groupiness", a symbol of group cohesion and major source of strength for minority groups. A high level of ingroup homogeneity is therefore a very effective way of projecting a distinctive group image of compactness and cohesion which can be used as an alternative dimension of comparison with the outgroup.

On the other hand, majority groups would not be motivated to use such a strategy to preserve their positive social identity and therefore, in line with a cognitive explanation, would display the more usual outgroup homogeneity effect. Empirical evidence confirms the predictions of SIT relative to group size and intragroup perception (Simon, 1992), and also rules out possible alternative explanations like the fact that smaller groups per se might be more homogenous (Mullen & Hu, 1989; Tversky, 1977); in which case the homogeneity effect would depend on the minority position itself and not on the threat to self esteem that such position creates (Simon & Pettigrew, 1990). Simon and Mummendey (1990) pursued the argument even further and showed that " the perception of relative ingroup and outgroup homogeneity is influenced not only by the

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'factual' numerical relation between ingroup and outgroup, but also by group members' implicit assumptions about this relation" (Simon, 1992, p. 8).

The second intergroup variable responsible for the perception of intracategory homogeneity regards the specific attributes that are used for comparison. Implicit in the social identity assumptions is reference to the fact that the dimensions of comparison that a group uses to evaluate itself against an outgroup must be relevant to the social identity of the group itself. The outgroup in turn can be recognised as having some superior characteristics as well, but the theory implies that these would be much less relevant than those associated with the ingroup. The same thing holds for the ingroup homogeneity effect: the ingroup will be perceived as more homogeneous than the outgroup on traits that are relevant to the definition of the ingroup. This would strengthen the positivity of the group by giving the impression that the characteristic is strongly distinctive of every group member. On the other hand, the outgroup would be perceived as more homogeneous on those traits relevant for _its_ social identity. Simon (1990) tested these conjunct hypotheses and found empirical support for both, irrespective of the group size of the ingroup and the outgroup.

In line with the previous considerations is the third intergroup aspect to be considered in the explanation of the ingroup/outgroup homogeneity effect. Seeing that outgroup homogeneity is a requirement and a basic step in the formation and use of stereotypes (Linville, Salovey & Fischer, 1986), perceptions of group homogeneity will be socially shared so long as stereotypes are socially shared (Tajfel, 1981). Following Tajfel's argumentation, Simon, Glassner-Bayerl and Stratenwerth (1991) hypothesised that "members of stigmatised minorities cannot help participating psychologically in the

network of stereotypes prevailing in the social or intergroup context". The authors tested their hypotheses about self stereotyping and perceived ingroup homogeneity by comparing the homogeneity ratings of heterosexual men (majority group) and gay men (minority group) on a series of positive and negative group relevant attributes. Results showed, as predicted, that straight men perceived the outgroup as more homogeneous than the ingroup, while the gay respondents showed the inverted pattern rating the ingroup more homogeneous than the outgroup and therefore sharing the social stereotypes (see also Brown & Smith, 1989).

Although Simon's (1992) analysis of the conditions under which SIT can predict a perception of ingroup or outgroup homogeneity reports supportive evidence, this has not been free from critiques. Bartsch and Judd (1993) suggested that there is no inversion in the perception of group homogeneity relative to the minority and majority status of the group involved. According to these authors, the phenomenon is only apparent, and the effects of the majority have been confounded with the actual size of the outgroup. In a laboratory experiment, Bartsch and Judd put university students in different experimental conditions where they had to rate both ingroup and outgroup in the same order or in different orders. Also, the size of the first group to be judged was varied, while the size of the second group to be judged was held constant. Results showed that, in line with the predictions derived from SIT, the ingroup was judged more homogeneous when judged after a large outgroup than when judged after a small outgroup (Simon, 1992). However, this was true only when considering measures of perceived dispersion. When these instead were considered together with measures of perceived stereotypicality, an overall perception of outgroup homogeneity was found, irrespective of the size of the group. The debate on this matter still continues, (Haslam

& Oakes, 1995; Simon, 1995) as both hypotheses have received supporting and ambiguous research evidence.

Group homogeneity and its implications for SIT is, however, a vast area of research and the results reported above are only a sample of the most simple and illustrative experiments conducted on the topic. In more recent years the debate on group homogeneity has spread even further and its comprehensive review would go beyond the purposes of this chapter (see Doosje, Ellemers & Spears, 1996)

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4.3 Ingroup overexclusion and the "black sheep" effect

Closely related to the outgroup homogeneity effect are two other phenomena that rely mainly on social identity theory for a complete understanding; these are the ingroup overexclusion and "black sheep" effects.

Ingroup overexclusion effects occur when more information, or time for processing the available information, is necessary to assign a target stimulus to the person's ingroup than to the outgroup. In other words, whenever a group member is more concerned about a membership decision involving the ingroup rather than the outgroup.

Cognitive explanations of the phenomenon look at how information about the ingroup is coded using more subordinate categories while information about the outgroup uses more superordinate categories (Park & Rothbart, 1982). And, therefore, given that subordinate categories yield more information than superordinate ones (Rosch et al., 1976), inclusion in the ingroup takes more time and information because there are simply more features that individuate an ingroup member than an outgroup member.

On the other hand, social identity theory can explain the overexclusion effect as a protection against possible mistakes in the decision making process. If a target member, who in reality is not a real member and does not possess all the ingroup characteristics, is accepted into the group erroneously, the effect is considered deleterious as it undermines the homogeneity of the group: It introduces potentially undesirable features that could be misassociated with the whole group and reduces the distinctiveness of the ingroup. All these are considered possible threats to the positive identity of the ingroup and it becomes preferable for a group member to spend more time deciding over the inclusion of the target in the group, rather than jeopardising the positive distinctiveness of the whole group (Leyens & Yzerbyt, 1992; Yzerbyt, 1990).

The same two explanations also apply to the black sheep effect (a phenomenon closely related to, if not always associated with, overexclusion). What happens in this case is that if a member of the ingroup (whose membership has already been ascertained) displays a deviant behaviour or attitude, the reaction of ingroup members is far more severe than the one displayed in the case of an equivalent behaviour being performed by an outgroup member (Marques, Yzerbyt & Leyens, 1988; Marques & Yzerbyt, 1988).

The dispute between a cognitive and a social identity based explanation of these two effects is clarified by empirical evidence that seems to find more support for the social identity approach than for the cognitive one. The basic finding is that likeable and unlikeable ingroup members were respectively more favourably and unfavourably judged than likeable and unlikeable outgroup members (Marques, Yzerbyt & Leyens 1988, exp. 1). Only the need for a positive group identity and for the associated intergroup differentiation, in line with social identity theory, is able to explain such

inversion in evaluation; a cognitive approach would not predict such difference depending instead on the likeability of the target.

An even more specific hypothesis derived from social identity (and especially by self categorisation theory, Turner et al., 1987) was tested in a second experiment by Marques and colleagues (1988). The authors created different conditions in which the ingroup and outgroup members who were the target of evaluation would be likeable and unlikeable in terms of either a general norm or a specific group norm. The black sheep effect was obtained in the specific group norm condition but not in the general norm condition. The explanation provided is that in the latter case, subjects undergo a self recategorization under the broader category of "students" therefore eliminating any need for distinctiveness in terms of the original group (Marques et al., 1988). Furthermore, the black sheep effect was shown not to depend on the level of familiarity with the target, in which case a cognitive explanation of the phenomenon would have been justified (Marques et al., 1988, exp. 3).

Marques and Yzerbyt (1988) also confirmed the association between the black sheep effect and ingroup favouritism and an even stronger effect was found when using dimensions relevant for the group identity in the evaluation process. In an additional study, Yzerbyt, Leyens and Bellour (1995) refined the experimental design of the previous studies and asked subjects to make membership decisions about ingroup and outgroup members distinctively. At the same time, the kind of stimulus material was changed, asking for a more realistic judgement based on language rather than on personality traits. Once more it was found that subjects made more errors when confronted with an actual ingroup member than when the target was in fact an outgroup

member. But when the information given to take the decision was made more complicated (when the ingroup member was speaking with the outgroup language and when the sentences pronounced were longer) the effect of overexclusion became even stronger with an ingroup target and no difference was experienced with the outgroup target. The authors interpreted these findings as further support of the identity based explanation of the effect. If the complexity of the stimulus and the difficulty of the decision affect only decisions relative to the ingroup but not relative to the outgroup, a psychological motivation to protect ingroup distinctiveness becomes a more suitable explanation.

Altogether it seems that overexclusion and black sheep effects could be considered as two other ways in which the positive identity of the group is managed. But how can we be sure that all this really happens in order to protect the positive self esteem of ingroup members ? The association between these phenomena and levels of self esteem hasn't been tested yet. Of course it is plausible and meaningful to say that overexclusion and black sheep effects are used to preserve the positive value of the group, but no evidence has been shown yet confirming this initial hypothesis. How do we know that what drives these phenomena is not, for instance the motivation to maintain group size under control for individuation needs (see Optimal Distinctiveness Theory, Brewer, 1991) or any other alternative reason ?

Research in this direction is being conducted (e.g. Yzerbyt & Castano, 1998). However, here it is worth noting that, once more, the overwhelming motivating role of self esteem and positive distinctiveness is assumed and not tested.

4.4 Intergroup contact

Intergroup contact is another of the areas that has greatly benefited from the theoretical input of social identity theory. Intergroup contact was initially proposed as a way of improving intergroup relations and reducing outgroup stereotyping by Allport (1954), who also suggested a number of conditions that needed to be met in order for the contact between the two groups to have a positive effect on outgroup stereotyping and intergroup relations in general. Although Allport's list of qualifying conditions found support in empirical studies, much research has been devoted to improve the understanding of the conditions that allow for intergroup contact to positively affect intergroup relations (Pettigrew, 1986). Social identity theory was used with this purpose and led to the formation of two surprisingly different and opposed interpretations of the nature of intergroup contact effects. Both Miller and Brewer (1984) and Hewstone and Brown (1984a, 1984b) agreed that the need for a positive self esteem and social identity was driving intergroup conflict and that if any threat to such positive social identity could be removed from the intergroup context, via, for instance a positive contact, then the relationship between the two groups could be a less hostile one. In line with this view, SIT would predict that the similarity between the two groups should not be overemphasised as some supporters of the similarity-attraction hypothesis had argued (Stephan & Stephan, 1984; Triandis, 1972; Byrne, 1969). A high level of similarity might be easily interpreted by groups as a threat to group distinctiveness and identity, and group members would respond with behaviours that would maintain a safe level of distinction. These predictions were supported by studies which confirmed that subjects in a high similarity condition display more ingroup favouritism than subjects in a low similarity condition (e.g. Diehl, 1988). Despite having originated from the same

theoretical framework, Miller and Brewer, and Hewstone and Brown took opposite positions with respect to the kind of intergroup contact to be promoted. On one hand, Miller and Brewer proposed that categorisation should be downplayed and that contact between members of different groups should be free from any group membership qualification. In these conditions, interpersonal similarity would be perceived and it would promote attraction and positive intergroup relations. Initial evidence supported this hypothesis and showed that when the focus of attention was taken away from personal characteristic, favouring a group perception based on the task performed together, the level of ingroup bias increased (Miller, Brewer & Edwards, 1985; Wilder, 1978; Bettencourt, Brewer, Roger-Croak, & Miller, 1992; Bettencourt et al. 1997).

On the other hand, Hewstone and Brown argued in favour of the maintenance of intergroup context and therefore on a categorical definition of the situation. From their perspective, the causal chain from group identification to ingroup favouritism can be interrupted not by denying categorisation, but by preventing intergroup comparison happening on competing dimensions. The role of intergroup contact should be to increase the reciprocal knowledge of the two groups and to show how each of them possesses distinctive characteristics that can be considered positive without threatening the groups' distinctiveness because they simply are not comparable. Moreover, if the outgroup member with whom the encounter takes place is not typical of that group, generalisation to the whole group would be more difficult (Wilder, 1984). Once more, there is also evidence that, by redirecting the comparison process, intergroup contact leads to a reduction of intergroup bias (Lemaine, Kastersztein and Personnaz, 1978; van Knippenberg, 1978; van Knippenberg and van Oers, 1984).

In more recent years research on intergroup contact has concentrated on trying to resolve the dispute between these two positions generated from social identity theory as well as other theoretical perspectives (e.g. the Common Ingroup Identity Model, Gaertner et al. 1989, 1993) without really coming to conclusive solution (see Mackie, Queller, Stroessner & Hamilton, 1996 for a review). In the meanwhile, researchers who have decided to follow one or the other perspective have investigated many specific instances in which contact (in whatever form) might help to create more positive intergroup relationships, as in South Africa (Dixon & Reicher, 1997); the European Union (Pettigrew, 1997); Northern Ireland (McClenahan, Cairns, Dunn & Morgan, 1996) just to cite the most recent. Whatever theory we favour, SIT's influence is still evident and the domain of application of its concepts keeps broadening.

4.5 Social Dilemmas

Social dilemmas are situations where people are interdependent with each other and where individual self interest has very large negative consequences for the rest of the community-collective. These situations are usually divided by economists into "commons dilemmas" and "public goods dilemmas". In the first kind "the benefits of selfish behaviour accrue to the individual, but the cost of that behaviour are shared amongst everyone in the collective", while in the second kind " the benefits of a common resource are available to all members of a collective, but the costs of preserving the public good must be borne by individuals" (Brewer & Schneider, 1990, p.169).

In both cases, though, a positive solution for the collective rests on the hope that a majority of the people will act not according to their self interest but to the interest of the collective of which they are members. But as social identity and especially self categorisation theories tell us (Tajfel & Turner, 1979; Turner, Hogg, Oakes, Reicher & Wetherell, 1987), people can either feel part of the collective by identifying with other members of the group affected by the social dilemma, or they can display a very low level of group identification and feel themselves to be merely separate individuals. From a social identity perspective we can expect people that are highly identified with the group to act in the interest of the collective while individuals who identify very little with the group are expected to act for their self interest. Therefore the solution proposed by Social Identity Theory would be that of promoting a strong group identity to favour recategorisation into a superordinate level (depersonalisation; Turner et al., 1987; Hogg & McGarty, 1990).

The relationship between social identification at different levels of categorisation and collective choice in social dilemmas has been studied by Brewer and Kramer (1986). In a laboratory setting, the authors compared the effects of salience of superordinate versus subordinate levels of categorisation for collectives that varied in number of participants. Results showed differences between the commons dilemma and the public good dilemma. In one condition a superordinate level of categorisation reduced selfish behaviours regardless of group size, while in the second case the same result was found only for small size groups (and the reverse for large size groups). Similar results, showing a negative effect of social identification on collective choices, were found by Kramer and Brewer (1984) when comparing a superordinate level of self categorisation with an intermediate one (where a two group situation was created).

The explanation for these two negative results is that, in one case subjects find very difficult to share a common identity and a group affiliation with a very large number of people. The group interest becomes in these cases very diffuse and self interests are much more easy to pursue. In the second case, ingroup members are faced with an outgroup, and processes of social comparison and competition for the available resources are activated which promote self interested behaviours. (Brewer & Schneider, 1990). Despite their apparent complexity, these results give some credit to the social identity interpretation of social dilemmas.

However this perspective, too, is not free from critiques. When the level of commitment to a certain choice was measured in laboratory experiments participants, it was found that it predicted individual choices better than the level of identification (Boaus & Komorita, 1996; Chen, 1996; Kerr & Kaufman, 1994). So it would seem that the effect of ingroup identification is only indirect and it is actually mediated by the group decision and group commitment.

In the last pages we have shown how SIT has influenced a large body of research in many areas of social psychology. The intent of this review was that of demonstrating that social identity theory is one of the most, if not the most, influential interpretation of intergroup relations in the last 20 years.

But, as we all know very well, no theory that is static and immune from critiques and improvements through changes would really be epistemologically correct. We, therefore, have to be aware that there are still many problems to which Social Identity Theory can provide only a partial solution. But, just like in the natural world,

improvement is usually obtained via evolution, change and adaptation. In the next pages we will spend some time looking at the developments that have sprung from Social Identity Theory. We will look at how it developed (e.g. Self Categorisation Theory), how it has been criticised (e.g. by Social Cognition), and how it can be integrated into other theories (e.g. Optimal Distinctiveness Theory, Brewer, 1991)

5. Developments of social identity theory: Self categorisation theory

For a more detailed description of self categorisation we refer the reader to one of the original sources (e.g. Oakes et al., 1994; Turner et al., 1987). In this context we limit ourselves to a brief description of the theory to clarify its relationship with Social Identity Theory.

Self categorisation theory (Hogg & Abrams, 1988; Turner et al., 1987; Turner & Oakes, 1986) might be said to exist separately from Social Identity Theory, given that it addresses slightly different questions. Nevertheless, the links between the two theories are so close that often Self Categorisation Theory is described as a direct descendent from Social Identity Theory. Although this is a fair statement, we consider it more appropriate to say that Self Categorisation Theory builds upon some of the initial theoretical and empirical accounts of SIT, but then takes it in a different direction, developing into an independent theory. It is as if Social Identity Theory had left some of its assumptions unexplained and self categorisation takes care of explaining more precisely how certain processes, namely the categorisation process, functions in regulating a person's identity.

What exactly does happen when people categorise the social context ? According to self categorisation theory, people organise the social stimuli in a way that is economical and meaningful and, of course, they do so also with themselves: They self categorise. There are different levels of abstraction, and the three most important in relation to the self are:

1. The superordinate level that defines individuals as human beings (human identity).

2. The intermediate level where individuals are organised in ingroups and outgroups (social identity).

3. The subordinate level that defines individuals as different from other members of the ingroup (personal identity).

Depending on contextual factors, people can categorise themselves at a different level of abstraction and this will affect the way they interact with others. The intermediate level of abstraction though is the one where we observe phenomena such as social stereotyping, group cohesion and ethnocentrism, co-operation and altruism, etc. In these situations, the individual is depersonalised and redefined in terms of the group prototype. Here depersonalisation does not imply dehumanisation and all its negative connotations, but the simple fact that there is a change in the kind of identity, from personal or human to social.

But what determines the level of categorisation that will characterise every situation ? The answer proposed by self categorisation theory is in the concept of the metacontrast ratio according to which the salient category is that which simultaneously minimises intracategory differences and maximises intercategory differences within the social frame of reference. Building on the important role that intergroup similarity has in SIT,

Self Categorisation Theory considers a good balance between similarity and dissimilarity as crucial in determining the optimal level of categorisation. The level of similarity between the members of the same category (intragroup similarity) is judged as a positive feature of group identification (e.g. English people are polite). The more people can feel similar the other members of their category, the more they are going to feel supported and well defined (i.e. identified) by that category. So the optimal level of self categorisation (e.g. European, English, Londoner), is the one that offers the highest level of intracategory similarity. However people need at the same time to feel different from others in order to satisfy their positive distinctiveness needs (see the assumptions of SIT). This can easily happen at lower levels of categorisation, where similarity is defined on very specific traits which could, if taken to the extreme, define only a single individual. So, while the risk in using a too high level categorisation is that of being included in the same category with people that are different from us on very relevant dimensions, the risk of lower levels of categorisation is that of being the only one in that category, very different from everyone else, and lacking the support of social similarity. Therefore, an intermediate level of categorisation is considered to be the one usually preferred in self categorisation processes.

Besides the indirect support provided by research in the minimal group paradigm, Hogg and McGarty (1990) see self categorisation theory involved in three major areas of research: conformity and group polarisation (see Hogg et al., 1990 for a review) ; group solidarity, cohesiveness and attraction (Hogg & Hardie, 1991); and social judgement and stereotyping (Haslam, 1990; McGarty, Haslam & Turner, 1989).

6. An alternative to social identity theory: Optimal distinctiveness

Recently Brewer (1991) suggested that it is possible to integrate social identity approaches by looking at alternative needs that motivate intergroup behaviour. Optimal Distinctiveness Theory is proposed as being able to provide an interesting integration to Social Identity Theory in explaining certain aspects of group homogeneity (Brewer, 1993), group stereotyping (Lee & Otati, 1996) and intergroup contact (Brewer, 1997).

Optimal Distinctiveness Theory (Brewer, 1991) postulates that individuals, when endorsing a certain group identity, try to satisfy a need for both individuation and uniqueness. On one hand, people need to define themselves in terms of group characteristics to construct their identity by sharing similarities with others; in that sense, they need to be like someone else. On the other hand, individuals are also motivated to differentiate themselves from other individuals and to be unique.

Through social identification the need for assimilation is satisfied by ingroup similarities, and the need for uniqueness by intergroup differentiation. " In this model, equilibrium, or optimal distinctiveness, is achieved through identification with categories at that level of inclusiveness where the degrees of activation of the need for differentiation and of the need for assimilation are exactly equal" (Brewer, 1991, p.477).

Therefore, the key to the interpretation of intergroup relations is in the tension between these two processes. Brewer says that individuals identify with groups that provide an equilibrium between the two needs, implying also that ingroup members will try to maintain such equilibrium and would eventually favour intergroup differentiation if this can restore the balance. So, as also emerged from research on social dilemmas, the size

of a group is important in determining the level of group identification and the extent to which social identity processes will be active.

What is the evidence supporting these statements? The notion of individualisation is not a new one and we can find certain similarities in the uniqueness theory proposed by Snyder and Fromking, (1980), as well as in other models (e.g. Codol, 1984; Lemaine, 1974; Maslach, 1974; Ziller, 1964), while the need for distinctiveness is already postulated by Social Identity Theory. What is proposed here is that these two competing needs are both motivators of social behaviours. This translates into the experimental hypothesis that group size is reflective of level of assimilation/distinctiveness experienced by ingroup members. Majority groups, because of their larger size will show higher levels of ingroup bias, a manifestation of the need to restore a balance between assimilation (which is great in large sized, majority groups) and individuation (which is great in small sized groups). These expectations were met in one of the first studies conducted by Brewer (1991) and replicated in follow-up studies (1993).

7. Conclusions

In this chapter we have considered some of the reasons for the great success and impact that social identity theory has had on the study of intergroup relations in the past twenty years. SIT, on one hand, has succeeded in finding a solution to some of the problems emerging from intergroup situations (e.g. ingroup favouritism, group homogeneity, ingroup overexclusion, etc.), and has done so in a very convincing way, by including both cognitive and emotional components in its analyses. Also, it has positively

resolved the problems affecting previous theories of intergroup behaviour providing a more complete picture of the variables involved in social encounters.

However, despite its success, Social Identity Theory still has to face some controversial empirical results, some of which have been mentioned earlier. In the next chapter we will address one of these problematic areas in more specific terms, and we will consider the role of self esteem as the unique motivator of group identification.

Chapter 3

Group diversity and the association between
ingroup identification and ingroup bias

1. Introduction

In the previous chapter we described Social Identity Theory, several of the areas in which its concepts have been successfully applied and also some empirical discrepancies that the theory has been faced with. Social Identity Theory has been extremely successful in solving the problems that the study of intergroup relations was facing at the time, and it could probably be said to have gone beyond its initial expectations. Social Identity Theory has gained popularity over this period, to such an extent that at times we have the impression it has been used almost as a magic formula, able to open all the doors and to find an answer to any difficulty affecting intergroup relations. But of course this is not the case, the domain of application of SIT cannot be infinite.

In chapter 2 we have restricted our description mainly to the empirical evidence supporting social identity, and we have given only little space to disconfirming results. But several studies have proposed alternative explanations and demonstrated the

inadequacy of identification processes to account for the phenomena under examination

(e.g. Optimal Distinctiveness or Social Cognition studies oppose SIT predictions, or, for

instance, social dilemmas situations are more successfully predicted from the level of

group commitment to a certain choice than from group identification, Bouas and

Komorita, 1996; Chen, 1996).

We agree in principle with these critiques but we also believe that, if Social Identity

Theory is to be examined and evaluated, this has to be done in a constructive way, with

an eye open to its real predictions and with a deep understanding of its principles.

In this context, we want to discuss two aspects of Social Identity Theory that we think

are still particularly problematic and need to be clarified: The universality of the self

esteem hypothesis and the expected relationship between ingroup identification and

ingroup bias.

2. Unresolved issues within social identity theory

2.1 The self esteem hypothesis

One of the original assumptions of Social Identity Theory is that "individuals strive to

maintain or enhance their self esteem: they strive for a positive self concept" and, given

that social identity is an important part of the self concept, "individuals strive to

maintain a positive social identity" (Tajfel & Turner, 1979, p. 40). Thus, the need for

positive self esteem is presumed to motivate group members to use the perceptual

effects of categorisation in order to maintain a positive social identity.

We are well aware of the fact that self esteem has not always been the only motivation mentioned by Tajfel and colleagues. We acknowledge that in his early work, Tajfel considered perceptual accentuation phenomena as being influenced, and enhanced by "the value, or if one prefers the term, the value relevance of the classification to subjects" (Tajfel, 1959, p. 20). Later on he developed his ideas considering such need for coherence as the motivating factor of stereotyping and prejudice. In his words: "the need to preserve the integrity of the self-image is the only motivational assumption we need to make in order to understand the direction that the search for coherence will take" (Tajfel, 1969, p. 92). But it is also true that later on, as Abrams and Hogg (1988) point out, when the concept of social identity was introduced, "the coherence view became displaced in favour of a social-enhancement view derived from Festinger's (1954) theory of social comparison processes". From then on, self esteem was considered the primary motivation that drives groups and ingroup members toward differentiation and ingroup favouritism; a "positive valued distinctiveness from other groups" (Tajfel, 1972, p. 3) is what is important for group members. The main motive of identification is that of "achieving a satisfactory concept or image of the self" (Tajfel, 1974, p.4), and this is done through a positive social identity.

This view is too reductionist in our view and social psychologists should first try to verify the validity of this hypothesis. Also, the original proponents of the theory itself are not too clear about the effects or determinants of self esteem. For instance, Tajfel and Turner (1986) initially state that "a positive social identity is based to a large extent on favourable comparisons that can be made between the ingroup and some relevant outgroups" (p.16), implying therefore that a positive self esteem is the result of a comparison act. But, later on, they also say that "Like low status groups, the high status

groups will react to insecure social identity by searching for enhanced group distinctiveness" (Tajfel & Turner, 1986, p.22), now indicating that a low self esteem would be the cause of intergroup differentiation.

With the intention of gaining a better understanding of the position of self esteem in Social Identity Theory, Abrams and Hogg (1988) derived two corollaries that summarised the Self Esteem Hypothesis (SEH). According to these:

(i) Greater positive differentiation leads to higher self esteem;

(ii) Lower self-esteem leads to greater positive intergroup differentiation.

A considerable amount of research has been conducted in order to test these two corollaries.

According to the first corollary, self esteem is the product of intergroup discrimination. Evidence supporting this first hypothesis comes from Oakes and Turner (1980) who, using a minimal group paradigm, showed that the opportunity to successfully discriminate in favour of the ingroup produces higher levels of self esteem in experimental subjects. Also, Lemyre and Smith (1985) showed that when experimental subjects were simply categorised, but not given the chance to discriminate between ingroup and outgroup, their levels of self esteem remained unchanged, but in conditions where participants were given the possibility to differentiate between ingroup and outgroup, participants experienced an enhancement in their level of self esteem. More recently, Branscombe and Wann (1994) examined the role of self esteem in relation to intergroup differentiation under threatening circumstances. In this study, the level of threat that the outgroup would pose to the ingroup's identity was manipulated, and then the effects of outgroup derogation on levels of collective self esteem were measured in

both conditions. Results showed that in the condition where the outgroup represent a strong threat to the positive distinctiveness of the ingroup, outgroup derogation leads to increased collective self esteem. Also, when the outgroup poses no threat to the ingroup's social identity, derogating the outgroup has a detrimental effect on collective self esteem. Both these results confirm the validity of corollary 1.

In an examination of the evidence concerning these aspects of self esteem, Farsides (1995) explains that the reason for the many confusing results regarding this hypothesis is the failure to consider the necessity of intergroup discrimination being successful. If the differentiation does not result in a positive status position for the ingroup, the level of self esteem clearly won't be affected.

Turning then to the second corollary, self esteem is considered as a motivator of intergroup differentiation rather than an effect. Here the evidence is weaker. On the one hand, there is evidence that a low and threatened self esteem will produce higher levels of intergroup discrimination (Blanz, Mummendey & Otten, 1995; Hunter, Stringer & Coleman, 1993). Other studies however have found that groups with low levels of self esteem will show preference for the outgroup (Sachdev & Bourhis, 1987, 1991). In some cases it even emerged that groups with higher levels of self esteem, rather than lower ones, are the ones that display more intergroup discrimination (Crocker & Luthanen, 1990; Crocker, Thompson, McGraw & Ingerman (1987); also see Long & Spears 1996; and Rubin and Hewstone, 1998).

What Abrams (1992) argues at this point is that the two positions tend to converge, so that people with high self esteem will discriminate less than those with low self esteem, initiating a vicious circle where, in reality, we can expect to find any sort of association

(negative, positive and zero) between self esteem and intergroup discrimination. The conclusion is that the empirical evidence is extremely mixed and thus it is very difficult to assess the state of the SEH. The self esteem hypothesis has usually been studied by deriving postulates and operational hypotheses that can be easily tested in an experimental setting that however also usually involve a relationship with some other outcome variable. Its motivational role is assumed to have certain consequences, and if these are encountered in experimental settings, then it is concluded that self esteem is driving the relationship observed. An example of this is the very popular hypothesis, based on self esteem motivations, that ingroup identification itself and outgroup discrimination are strongly associated.

Another problem affecting research on self esteem and social identity is the distinction between personal and collective self esteem. Social Identity Theory has always been very clear about the social nature of the positive identity and that positive social self esteem motivates group members. However for a long time research has ignored this aspect of self esteem and measured what can best be described as personal self esteem. This measurement misunderstanding led Luthanen and Crocker (1992) to state the difference between the two measures clearly and to create a separate scale for the measurement of collective self esteem. Contrary to the second corollary of Hogg and Abrams, but in line with a self protection and self consistency perspective, Luthanen and Crocker predicted that high collective self esteem would lead to greater intergroup differentiation (Crocker, Blaine & Luthanen, 1993). However, despite being distinct scales, both personal and collective self esteem are predicted to have the same effect on intergroup relations and it is argued that people who are high or low in collective and/or personal self esteem are motivated to seek enhancement for themselves and for their

ingroups. These hypotheses, however, received only partial support and Crocker and Luthanen themselves (1990) found no evidence of a relationship between collective self esteem and direct ingroup bias.

In a further attempt to understand the role of self esteem in social identity research, Long and Spears (1996) accepted the conceptual distinction between personal and collective self esteem proposed by Luthanen and Crocker, but made a different prediction for personal and collective self esteem with respect to intergroup differentiation. They proposed looking at levels of identification and threat as possible moderators of the relationship between self esteem (personal and/or collective) and intergroup differentiation (see also Spears, Doosje & Ellemers, 1997; and Ellemers, Doosje & Spears, 1994). Results from their studies testing this hypothesis found that subjects with high personal self esteem show high levels of intergroup differentiation because they engage in more positive interpersonal comparisons and try to maintain their high positive self esteem which is benefiting their well being; while subjects with low collective self esteem show equally high levels of intergroup differentiation because of the threat that a low collective self esteem poses to their social identity.

In a more recent review of the status of the self esteem hypothesis, Rubin and Hewstone (1998) summarise the available literature as distinguishing between different aspects of self esteem. These include global vs. specific self esteem (Rosenberg, Schooler, Schoenbach, & Rosenberg, 1995), trait vs. state self esteem (Brewer & Miller, 1996; Heatherton & Polivy, 1991) and personal vs. social self esteem (Crocker and Luthanen, 1990; Luthanen & Crocker, 1991, 1992). The results of their anaalysis show that, in general, the first corollary derived by Hogg and Abrams receives more support than the

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secon one. Also there is more supportive evidence for both corollaries when using measures of specific, social and state self esteem. However, the authors believe that most of the diverging evidence regarding the self esteem hypothesis is to attribute to various "imprecise testing rather than any inherent weakness in the hypothesis itself" (pp.2), and provide an accurate discussion of many measurement clarification that could rescue the validity of the hypothesis.

In their extensive analysis of the self esteem hypothesis Hogg & Abrams (1990) also noted that " both, the theoretical and empirical bases of the SEH are largely rooted in research using the "minimal groups paradigm" and that in such circumstances, where all the external variables are strictly controlled in a laboratory "subjects may have little else to gain but self esteem" (Hogg & Abrams, 1990, p.38, 39). In real groups other motivations can play a role in regulating intergroup relations (e.g. self knowledge, cognitive consistency, social support). We believe we should be cautious in assuming that the same processes take place in real groups in the same way as in a minimal group; the reality of social groups is so rich that to reduce it to one single motivation seems implausible. This is not say that self esteem plays no part, but we agree with Hogg & Abrams (1988) and Abrams (1992) who warn against the fact that other "sociological" motivators can play a more dominant role in different circumstances from the ones used in the minimal group studies. Their suggestion is to incorporate variables such as the distribution of wealth and power, material resources, the nature of goal relationship between groups, religious and political values, and others.

Abrams and Hogg are not the only ones warning against the universality of the self esteem hypothesis (see Long & Spears, 1996). As we noted earlier, Brewer's theory of

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optimal distinctiveness is a concrete example of how a different motivation (specifically the tension between a need for distinctiveness and a need for assimilation) can explain the psychological processes leading from ingroup identification to intergroup differentiation. Once more, though, the predictions of Optimal Distinctiveness are quite vague providing no specification about the characteristics of the groups that are likely to display these needs for distinctiveness and assimilation. The need for positive self esteem is replaced with a need for optimal distinctiveness, operationalized as the need to maintain an optimal group size, that is equally universal and context free.

But, even with its limits of Optimal Distinctiveness, for a long time no other attempt has been made to analyse the effects of different motivators of group identification. So, given the very critical position of self esteem in explaining the motivations for identification, it would be interesting to investigate other possible motivators of social identification.

2.2 The association between group identification and group differentiation

Another aspect of concern regarding Social Identity Theory is the relationship between ingroup identification and ingroup bias.

We can summarise SIT as follows: social identity being the major component of an individual's self concept, the need to preserve (or regain) a positive social identity will motivate individuals to differentiate between their ingroup and an outgroup by favouring the ingroup. This core assumption of Social Identity Theory can be found in any original formulation of the theory (e.g. Tajfel, 1978; Tajfel and Turner, 1979) and has been interpreted (e.g. Hinkle & Brown, 1990) as describing an association between

levels of identification and ingroup bias. Those subjects who are more identified with the ingroup and hence derive their self concept primarily from their social identity, are also expected to be the ones to display the highest level of intergroup differentiation. So ingroup identification should be positively and strongly correlated with ingroup bias[1] .

Hinkle and Brown (1990) took a closer look at all those studies testing the association between identification and bias and found that the average correlation between ingroup identification and ingroup bias was only around r= .20. Clearly this is not the clear-cut association that Hinkle and Brown would have expected to find following the strong emphasis that social identity theory puts on the self serving functions of group discrimination. Moreover it was difficult to explain the large variation around this median value, with correlations ranging from R= -.79 to R= +.59 . What could account for this diversity? And how can Social Identity Theory explain the negative correlations?

3. How to rescue social identity theory

One way of dealing with these problems would be to discard SIT, saying that it failed to successfully predict intergroup differentiation. This is not our intention, simply because it would be like "throwing out the baby with the bath water"; social identity theory has been proved useful in many other empirical contexts so that it makes little sense to jettison it entirely.

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[1] This assumes that other conditions are kept constant, like the relevance of the outgroup and the threat that it poses to a positive social identity.

The tendency in the last few years has been that of finding alternatives to Social Identity Theory (e.g. optimal distinctiveness or social cognition perspectives) or, only very recently, that of fragmenting its concepts and individuating subcomponents of identification that can account for the problematic relationships between identification and some intergroup variables.

An example of this latter approach is the research recently conducted separately but in parallel by social psychologists in the Netherlands and in Germany. Ellemers, Kortekaas and Ouwerkerk (1999), considered the three different components of social identity included in the original definition of social identity (Tajfel, 1978): a cognitive component (the cognitive awareness of one's membership in a social group, also represented by the self categorisation concept), an evaluative component (a positive or negative value connotation attached to this group membership, corresponding to the group self esteem), and an emotional component (a sense of emotional involvement with the group, also expressed by the affective commitment to the group). They proposed that most of the controversial results obtained in research involving Social Identity Theory would have occurred because the measures of social identity used erroneously merge the three components of identification. They suggested that each component has different implications for different aspects of intergroup behaviour and some of the assumptions of Social Identity Theory should actually regard one specific component at a time. In the same way, different aspects of the intergroup context (status position, majority or minority position of the group, achieved or ascribed membership of the ingroup) selectively affect specific components of ingroup identification. By separating the three components of identification, it is proposed, it will be possible to restore the validity of the assumptions of Social Identity Theory in many areas of

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intergroup relations, because the problematic relationships with measures of identification (measured as a unique factor) will be substituted by the predicted relationship with a component of ingroup identification.

In the first experimental verification of this approach, Ellemers and colleagues created an empirical situation in which they assigned participants (119 students of the Free University of Amsterdam) to one condition of a 2x2x2 between subjects design, manipulating the way in which groups are formed (assigned group condition vs. self selected group condition), the size of the ingroup (majority vs. minority) and the status of the ingroup (high status vs. low status). Analysing the relationship between these conditions and the dependent variables (the three components of identification and ingroup favouritism) it was possible to verify most of the initial hypotheses. The emotional component of identification was significantly higher in self selected groups; the evaluative and emotional component of identification only were higher in high status groups; and the cognitive component of identification was significantly higher in minority groups. Thus the predictions of Social Identity Theory (ingroup identification higher for high status group, minority groups and self selected groups) were fully supported following the suggested partition of the concept of ingroup identification. As far as the relationship between ingroup identification and ingroup bias is concerned, results showed that the overall correlation between identification and bias is due to the effect of the emotional component only; and that, once more, only this measure mediates between the three independent measures and ingroup favouritism. These findings therefore, seem to reconcile contrasting evidence about the predictions of Social Identity Theory in areas that study variables like status positions and ingroup favouritism.

In parallel to this research, Klink, Mummendey, Mielke and Blanz (in press) tried to differentiate between different components of identification in order to clarify which kind of identity management strategies would be used to restore the positive identity of low status groups members. Using the same tripartite model of ingroup identification specified by Ellemers (and actually contained in Tajfel's definition of social identity) they found that individual strategies of identity management (e.g. social mobility) are most strongly correlated with the emotional component of identification, while collective strategies (e.g. social competition) are predicted only by the cognitive component of identification.

But selecting specific aspects of the concept of identification is not the only possible way of answering the critiques of Social Identity Theory. In this thesis, it is our intention to show that SIT predictions are not only valid but that we can also account for the contrasting results mentioned before if we just add some specifications to the conditions in which SIT principles are applicable. What we mainly contest is the claim of the generality of the self esteem hypothesis, and we consider in more detail the different motivations that can drive group identification. We think that social groups can be different in many ways and that SIT can explain intergroup differentiation only when certain kind of groups are involved, specifically groups whose motivation for identification is self esteem, as originally specified by Tajfel and colleagues. But when the needs that motivate identification are other than self esteem, there is the possibility that groups will feel and behave differently. It is that possibility we investigate.

4. Social groups and their diversity

There are many ways to define a social group (Brown, 1988). For some a group begins with the experience of a common fate (e.g. Lewin, 1948; Campbell, 1958); others believe in the need for a formal or implicit social structure in order to consider a collection of people as a group (Sherif & Sherif, 1969); and so forth, through the contributions made by Bales, (1950) and Homans (1959) concerning the face-to-face interaction that characterises every group; the perspective of Self Categorisation Theory, where we find the need for a self perceived membership (Turner, 1982); or Tajfel's own suggestion to include both: a self perceived membership and some sort of outside recognition of the group as such.

But none of these definitions seem to consider that groups can be different. What can be said about one group is not necessarily valid for every other group. Our question is therefore: Is it possible that not all groups are the same, that they do not all behave in the same way regardless of whether they are work groups, religious groups, sport groups and so on ?

Social identity as well has this possibility and claimed, for instance, that the need for positive distinctiveness operates for any group in certain conditions. The same was true for Realistic Conflict Theory, wherein the goal relationship determines intergroup behaviour and we can apply its predictions to any group. But perhaps the results of many empirical studies would be different if conducted not only on psychology students, but also on groups that have different psychological and structural characteristics (e.g. the motivations that bring them together, their goals, the way in which roles in the group evolve, specific cultural attitudes toward certain issues, etc.)

Hinkle and Brown (1990) considered these questions. After their initial review of the empirical evidence concerning the relationship between ingroup identification and ingroup bias, they suggested that the predictions of SIT would have been fully confirmed had such group diversity been taken in consideration. According to these authors, the principles of SIT could be applied successfully only to a specific kind of groups. To support their ideas, they created a group taxonomy obtained by crossing the two dimensions of collectivism/individualism and relational/autonomous orientations. Then they hypothesised that only in the case of groups with a collectivist and relational intergroup orientation it would be possible to find a positive and strong relationship between ingroup identification and ingroup bias.

The Collectivist/Individualist dimension is a cultural variable introduced by Hofstede (1980) and Triandis, Bontempo, Villareal, Asai and Lucca (1988). Collectivist cultures or individuals are those for whom "intragroup cooperation, collective achievement, and interdependence with fellow ingroup members have special importance" and for whom group's goals and norms predominate individual ones. On the other hand, Individualistic cultures or people are those for whom "interpersonal competition, individual achievement, and independence from the group is emphasised" and for whom individual goals and norms have precedence. Hinkle and Brown thought that this dimension would be conceptually parallel to the intergroup-interpersonal continuum described by Tajfel, (1978), while at the same time having the advantage of distinguishing between kinds of groups, rather than referring only to the belief system of the individual. As the intergroup end of the continuum was the one for which SIT was applicable, in the same way, in this model collectivist groups are the ones that would display a positive and strong correlation between identification and bias.

The Relational/Autonomous orientation, on the other hand, refers to people's or groups' tendency to compare themselves (or not) with other people, when trying to evaluate themselves. Alternatively, the same evaluation process could take place not against others but referring to internal absolute standards or to the individual's or group's previous performance, through a temporal self-comparison that does not require the presence of an outgroup (autonomous extreme of the dimension). This second dimension is introduced as another meaningful way of distinguishing between groups or group contexts; and it is for groups that can be defined as relational that SIT's processes can be expected to take place. It is in this case only that social comparison processes should assume the form predicted by Social Identity Theory. Crossing the two dimensions Hinkle and Brown obtained four possible kinds of groups, but it was only for those on the collectivist and relational extremes that they expected to find the positive correlation between identification and bias predicted by SIT. On the other hand, groups that are more on the individualist and autonomous extremes should display the lowest level of association between identification and bias; while for the other two "intermediate" kind of groups such associations should be only moderate. The authors explain their predictions saying that it is only in the case of collectivist and relational groups that social identity would be given a particular role and for whom the comparison process would involve a relevant outgroup. Individualist and autonomous groups instead were thought to be less concerned with intergroup comparisons and also, for them the psychological aspects of their group identification would not play a priority role in determining their behaviour. Individualists' identities are indeed thought to be constructed in a much more personal and instrumental way than collectivists' ones. (see

Grant, 1996, for alternative origins of the self concept in individualistic/autonomous groups).

Despite small differences in their procedure, the first studies conducted by Brown, Hinkle, Ely, Fox-Cardamone, Maras and Taylor (1992) confirmed the model. In this series of three studies, subjects (University Psychology students and school students), first completed a scale for the measurement of the collectivist/individualist orientation (Triandis et al., 1988). Then, during a second session of the study, they participated in a group decision making exercise (depending on the experimental condition). Participants worked in groups of five on an assigned task for 15 minutes and then they filled in a measure of ingroup identification with the task group. They were then shown a five-minute video tape in which another group similar to their own was working on the same task and they all expressed an evaluative judgement about the ingroup and the outgroup. The last variable to be measured was the relational/autonomous orientation. In order to verify the predictions of the model, subjects were first recoded as either individualist or collectivist, relational or autonomous using a median split. For each cell, the correlation between ingroup identification and ingroup bias (obtained by subtracting the outgroup evaluation from the ingroup evaluation) was computed and the coefficients in the four cells compared. The results of the first study are summarised in Table 3.1 (while those of the other studies will be described in chapter 4). It appears that the predictions of the Hinkle and Brown model are verified: the association between ingroup identification and ingroup bias is stronger in the collectivist/relational cell (r =.79), very weak in the individualist/autonomous cell (r = .03) and intermediate in the other two cells (r = .33 and .47).

A full account of these studies, as well as a review of the other research conducted on the Hinkle and Brown model, will be presented in chapter 4, but for the moment we draw attention to the theoretical importance of the suggested taxonomy. As for as we are aware, for the first time, differences between kinds of groups are used to predict intergroup relations.

Table 3.1 Results of study 1 from Brown et al. (1992)

	Autonomous orientation		Relational orientation	
Individualists	Ident	Bias	Ident	Bias
	62.6	23.5	61.5	28.0
	(7.8)	(29.3)	(10.0)	(24.9)
	N = 17		N = 24	
	r = .03		r = .33*	
Collectivists	64.9	33.8	68.3	40.7
	(14.4)	(28.5)	(8.9)	(27.6)
	N = 25		N = 18	
	r = .47**		r = .79***	

As we will see in chapter 4, however, the initial support for the Hinkle and Brown model has not been consistently replicated.

Another contribution to the study of group diversity is the work conducted by Deaux, Reid, Mizrahi and Either (1995). Their approach was to look at the perception of various groups, suggesting that maybe social psychology had not considered possible group differences because this does not reflect the way people organise the reality of groups. In fact, Deaux and colleagues wanted to show that people perceive differences

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between kinds of groups and this might be reflected in the way they judge intergroup similarities. If people have the cognitive need to categorise groups into different clusters, this would imply that such groups are perceived as heterogeneous. Deaux and colleagues (1995) began by explaining that a group is represented cognitively by a social identity. Once a person belongs to a group and identifies with it, we can use the terms "group" and "social identity" as synonymous. In their study, a list of 64 social identities, obtained from a previous study (Deaux, 1991), was used as the stimulus material for participants (259 psychology students). In a first task, participants had to judge the degree of similarity amongst these 64 groups by creating different piles (each type of group was written on a card), each pile containing identities considered most similar to each other. In the second task, participants were given a specific trait or characteristic as a basis for evaluation. They had to rate, on a 7-point scale, each group using that trait. In total, 15 trait properties were available, including attributes like: changeable/unchangeable, desirable/undesirable, ascribed/achieved, etc.

The results of the first task, that of grouping identities, showed the presence of 5 clusters of groups. Thus participants perceived the 64 groups as different from each other and as forming five bigger "groups of groups". The five clusters of groups were named as follows: Relationship (containing the identities: son, daughter, wife, teenager, etc.); Vocation/Avocation (grouping identities like: salesperson, teacher, student, etc.); Political Affiliation (with identities like: democrat, Republican, etc.); Stigma (some of the identities included were: retired person, deaf person, homeless person, etc.) and Ethnicity/Religion (containing identities like: Jewish, Christian, American, Hispanic, etc.). As for the similarity ratings on the 15 traits, 10 of the 15 traits (e.g. desirable-

undesirable, expressive-agentic, peripheral-central, ascribed-achieved, etc.) were used to differentiate the five clusters.

A detailed description of the pattern of associations between identities and traits is provided by Deaux et al. (1995). It is worth noting that the collectivism/individualism trait was one of the attributes able to differentiate between identities, but the relational/autonomous trait was much less useful in producing such a differentiation. This study thus provided only partial support for Hinkle and Brown's theoretical approach. However, these results clearly support the claim that social identities (even though only perceived, rather than experienced identities) are characterised by different features and that it is plausible to expect that these different features have an effect in determining variations in the intergroup context.

At this point we began to perceive an explanation to the two more problematic areas of SIT we mentioned earlier: the self esteem hypothesis and the association between identification and bias. The solution, we thought, might rest in the differences existing between groups in their motivations underlying social identification. We have seen, in fact, that groups can be perceived as being different, probably reflecting the existence of real differences in their characteristics (Deaux et al. 1995); and we have also seen how the low average correlation between identification and bias can become much higher for certain kinds of groups (Brown & Hinkle, 1992). In this thesis we will try to show that the difference between groups in functions of identification is responsible for the differences in attitudes and behaviours displayed by various social groups. However, we next take up the question: What does it mean that groups differ in their functions of ingroup identification?

5. Functions of social identification

According to self categorisation theory, we identify with different groups at different times and different role identities are characterised by different behavioural expectations. People behave differently when they categorise themselves as students, children or as football players; there are many behavioural expectations that one has to fulfil in each of these roles. But, together with the behavioural demands, there are also some other aspects that might characterise different identities, as for instance the different needs that people try to satisfy when identifying with a group. We define functions of identification as the underlying motivations and the needs that a certain group can satisfy for its members.

As a metaphor, we could consider the self as a person and the many identities that the self can endorse as the clothes that a person can wear. Just as a person can wear different clothes in different circumstances, the self can identify with different groups at different times and acquire different identities. Thus, when, SIT states that a specific identity is chosen and maintained only because it satisfies the self's need for a positive self esteem, it is a bit like saying that a person wears clothes only because they are nice and make him/her look positive in comparison to others (i.e. people only wear clothes that enhance their beauty and their appearance). But what about the fact that clothes can protect our body from cold temperatures? Or that they can cover parts of our body that we don't want to display? Or again, that they might convey a certain image of ourselves (e.g. as a business person) ? Clothes can have many different functions for a person, the same way that a group or identity can have many functions for the self, and some clothes are better for some purposes in some circumstances.

Stretching the metaphor a little further, we can also say that a person who wears a certain shirt or dress because it makes him/her look nice and therefore to feel positive (self esteem motivation), would also tend to compare him/herself with other people, looking at the way they dress, so that he/she has a chance to emerge as positively distinct. Therefore, in order to feel more positive, this person will tend to consider other people's clothes as more different from his/her own ones and maybe less nice. On the other hand, when dressing for work as a carpenter or builder, she/he would tend to wear clothes with other functions (e.g. protecting from contact with dangerous substances) but with less regard to reasons of appearance. In this context it is difficult to imagine people comparing their respective clothing, and trying to differentiate themselves from others.

Thus our central argument is that there is a link between the functions of a certain group identification and the intergroup behaviour that is shown by group members in order to satisfy that specific need or function. SIT has traditionally conceived of just one function, self esteem; we believe there may be others. Before beginning this analysis, it is important to consider if members of different groups are in fact motivated by different needs when they identify with the ingroup.

Deaux and colleagues (1996) first investigated the different motivations of group identification. They developed a measure of functions of identification using available theoretical and empirical sources (e.g. Forsyth, Elliott & Welsh, 1991; Luthanen & Crocker, 1992). They obtained a scale that was then administered to people with particular identities. The results of a factor analysis performed on the 42 items comprising the full scale suggested the existence of six factors, each describing a

different need answered by social identification. Some of the functions actually represented individual needs while other were more focused on group-relevant motivations. The six factors were described by the authors as follows: Factor 1: Self insight and self understanding; Factor 2: Intergroup comparison and competition; Factor 3: Ingroup Cooperation and cohesion; Factor 4: Collective self-esteem; Factor 5: Downward social comparison and Factor 6: Social interaction and romantic involvement. Factors 1 and 5 are assumed to address individual needs, while the others represent group oriented functions of social identification.

In the second phase of their research, Deaux and colleagues sampled from the types of groups obtained in the previous studies (see reference above) and administered the "functions" scale to a sample of respondents from each group. They chose to consider a religious identity (Mormon), an ethnic identity (Taiwanese/Chinese), and three different types of vocation/avocation identities (students, lacrosse team player, and health club member). Figure 3.1 shows the average factor scores from each of the five groups. We can see how, for instance, intergroup comparison is a very important function of identification for lacrosse team members but not for Mormons, and how ingroup cooperation is a strong motivator of ingroup identity for Mormons but not for health club members.

Altogether, these results provide promising preliminary evidence for the claim that there are significant variations in the functions served by different social identifications, and they open the way to a new area of intergroup research.

Figure 3.1 Graph representing the factor scores of the five groups tested by Deaux et al. (1995)
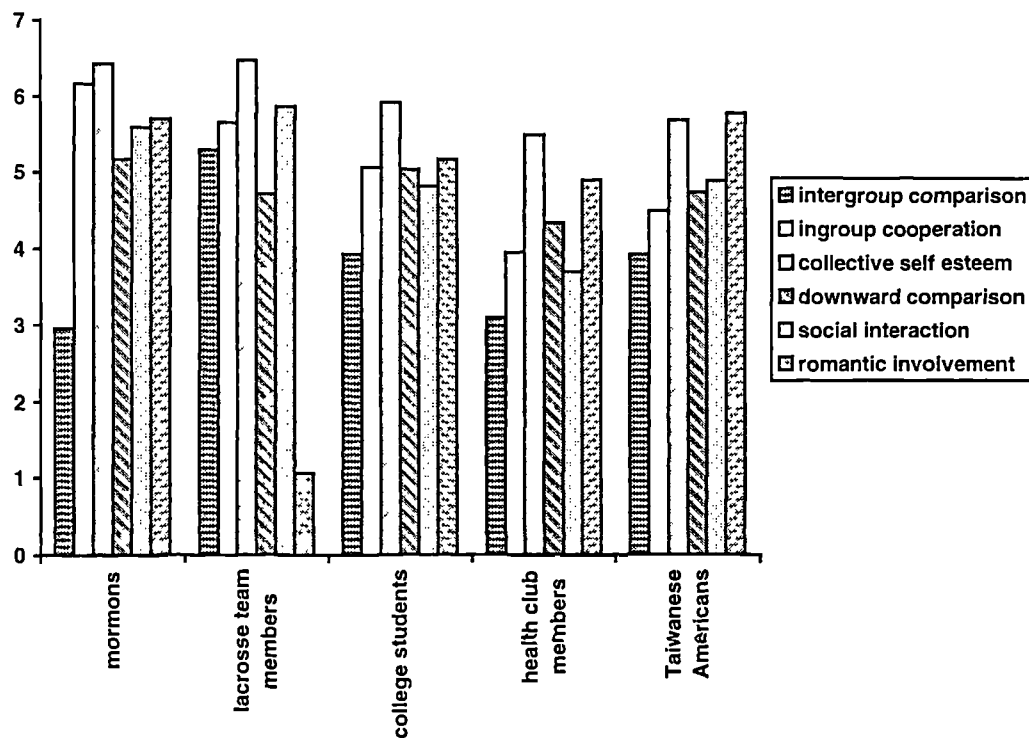
Torres (1996) replicated Deaux's (1995) study and conducted similar experiments

where she asked participants to create clusters of groups by distributing into piles a set

of 15 cards, each representing a different group (some of the groups used were:

University, Religious group, Family, etc.). The difference between Torres' and Deaux's

studies was that participants in Torres' study (an equal number of English and Brazilian

psychology university students) actually belonged to the groups they had to sort, and

therefore they were assumed to have a better knowledge of the characteristics and

attributes involved (Recall that Deaux asked her respondents to sort mostly groups of

which they were not members). This time Torres obtained three clusters that she defined

as follows: Affective Relationships (e.g. friends, religion, family, psychology);

Entertainment Relationship (e.g. leisure, sport team, university, students' society) and Civic Relationship (e.g. political party, work group, nationality and social class). Once more, in the second phase of the research, Torres (1996) tried to match categories of groups to functions of ingroup identification. Participants, after having sorted the 15 cards containing names of groups, were given another set of 25 cards each representing a different function of identification, and they had to group together kinds of groups and functions of identification that were characteristic of that group. For the English sample Torres found that the cluster "Affective Relationships" was associated with the functions of Intimacy, Socialisation, Standards to live by, and Self Understanding; the second cluster, "Entertainment Relationships" was associated with functions of Collective Achievement, Competition and Evaluation of the outgroup; while the third cluster, "Civic Relationships", was associated with functions of Distinctiveness, Social Identity and Downward Social Comparison[2].

Given the specific methodology used by Torres, it is evident that two different clusters of groups cannot share the same function of identification. We doubt this is the case in real group situations and we therefore suggest that further investigations in this area should adopt a methodology that allows the same function to be shared by different groups. But this weakness aside, we believe that these studies were important because they provided data to map a relationship between kinds of groups and meanings of identification.

Table 3.2 summarises what we know so far about kinds of groups and their associated functions of identification. The right half of Table 3.2 shows the groups and functions

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[2] Relatively similar results were obtained for the Brazilian sample.

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found by Deaux and colleagues and on the left are the more-or-less corresponding groups and associated functions found by Torres. First note that the two group classifications do overlap to a certain extent. Deaux used 64 identities and found 5 clusters, while Torres only used 15 groups and obtained 3 clusters. Torres' groups did not include any sort of stigmatised identity but still we can see some parallelism between the groups in the vocation/avocation cluster (Deaux) and the leisure relationship (Torres), and between the ethnicity cluster (Deaux) and the civic relationship one (Torres).

However it is difficult to find similarities between the functions of identification associated with each cluster of groups in the two studies. On one hand, the information obtained from Torres is more clear and differentiates better between groups that have emotional functions of identification (affective) and groups that have more comparative and competitive functions (entertainment and civic). However, as noted above the possibility of different clusters sharing one or more functions differed between the two studies.

When the groups instead are allowed to share functions of identification (Deaux), it is quite difficult to differentiate between groups. There is of course a difference between groups in the pattern of motivations considered most important, but this is overshadowed by the overwhelming effect of the collective self esteem function. We observe that there is little space left for differences to emerge if self esteem is measured. This may be evidence that collective self esteem is really the most important function of identification, but perhaps giving respondents the opportunity to think of self esteem

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motivations for identification prevented them from mentioning other functions that

nevertheless play an important role in intergroup situations.

Table 3.2 Comparison of the cluster structure and corresponding functions of identification in Torres (1996) and Deaux et al. (1995)

Torres (1996)		Deaux et al. (1995) and Deaux (1996)	
Affective rel. • Friends • Religion • Family • Psychology	• intimacy • socialization • standards • self understanding	• Mormons (Religion/ethnicity cluster) • Students (Vocation/Avocation cluster)	• collective self esteem • ingroup cooperation • romance • collective self esteem • ingroup cooperation • downward comparison
Civic rel. • Political • Work • Nationality • Social Class	• distinctiveness • social identity • downward comparison	• Taiwanese (Religion/ethnicity cluster)	• _collective self esteem_ • social interaction • downward comparison
Enertainment rel. • Leisure • Sport • University • Student society	• collective achievement • competition • evaluation	• Lacrosse (Vocation/Avocation cluster) • Health club (Vocation/Avocation cluster	• _collective self esteem_ • social interaction • ingroup cooperation • collective self esteem • romance • downward comparison

Another problematic element of Deaux's study is that most of the items used to measure

collective self esteem are identical to measures of ingroup identification. For instance, if

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we compare these items with Brown et al.'s (1986) scale of ingroup identification, we notice that items like "In general I am glad to be a...; I often regret being a ...; I would define myself as a ..." are instead used by Deaux to measure self esteem. The authors report a correlation between identification and self esteem of R=.66 (although it is not clear for which of the groups this is reported). This strong association might be the result of the similarity in the wordings used to measure the two concepts. We therefore suggest that it would be better to use a different measure of self esteem. It would also be instructive to have more information about the relationship between strength of identification and the various functions, given that it is this relationship, rather than the simple mean of the functions, which is likely to be informative of the psychological processes underlying ingroup identification.

Thus, although these initial studies shed some light on the question of group diversities and functions of identification, we think that more research is needed in order to come to a better understanding of the relationship between kinds of groups and their specific functions of identification. In particular, the specific problems that seem to require investigation are:

■ What is the real contribution of a specific function to ingroup identification? Or, to put it differently, what is the level of association between identification and discrete functions in different groups ?

■ Can we find groups that have a distinctive pattern of functions of identification?

■ What is the relationship between motivations and identification ? Do functions of identification lead to identification, or are they rather a product of the identification itself ?

■ What is the impact of different motivations on intergroup attitudes ? Can we say that self esteem functions of identification favour intergroup conflict while other functions elicit different intergroup attitudes and behaviours ?

■ What is the effect of time on functions of identification ? Is the association between a group's development and certain functions of identification stable over time or is it variable ?

These issues are analysed in the following chapters through the formulation and testing of specific experimental hypotheses. We aim to solve two of the most problematic aspects of SIT (the _self esteem hypothesis_ and the _identification bias association_) by exploring group diversity and functions of identification.

We are aware of the possible criticisms that could be made of this kind of research, the most common being that of wanting to undermine the integrity of SIT. One might say as well that creating group typologies and claiming the important role of alternative motivations to social identification, is like taking apart Social Identity Theory, leaving aside the bits that we don't like and using the more convenient assumptions, whilst still benefiting from the popularity of a theory when there is really little left of it.

Of course, this is not the case, and we defend our theoretical and empirical approach by holding that we are reducing the domain of applicability of social identity principles to those kinds of groups that have self esteem as the major motivation of identification. Thus we strengthen the theory as a whole by freeing it from problematic empirical findings that it cannot presently explain. Whatever the approach we take, the fact remains that there is controversial evidence surrounding the assumption of Social

Identity Theory, and that it can hardly survive without evolving and adapting to the growing body of knowledge that exists in the field of intergroup relations.

As said before, in this thesis we will mainly consider functions of ingroup identification as the crucial difference between groups that could account for the variability in the association between ingroup identification and ingroup favouritism. Although we think there is more than enough justification for exploring group diversity according to this perspective, this position, and the experiments we are about to describe are just one possible way to look for a solution to current problems of SIT. With this in mind, we begin in the next chapter with a meta-analytic review of research conducted on Hinkle and Brown's (1990) preliminary group typology, for which already exists much published research.

Chapter 4

A meta-analytic review of

the Hinkle and Brown model

1. Introduction

As we discussed in Chapter 3, one of the main hypotheses derived by Hinkle and Brown

from Social Identity Theory is that the level of ingroup favouritism shown by ingroup

members is caused by, and therefore strongly associated with, the strength of ingroup

identification. We have also seen that, after having reviewed several studies which

tested this relationship, Hinkle and Brown (1990) found only weak support for this

hypothesis. In order to explain the variability in the association between these two

variables, Hinkle and Brown proposed a taxonomy that differentiated between kinds of

groups. The two orthogonal dimensions (or continua) of Individualism/Collectivism

(Hofstede, 1980; Triandis, Bontempo, Villareal, Asai & Lucca, 1988) and

Relational/Autonomous (Hinkle & Brown, 1990; Festinger, 1954) were used to identify

the kinds of groups expected to display a different level of association between ingroup

identification and ingroup bias. Specifically, groups whose ingroup members would

score high on both measures of collectivism and relational orientation were expected to

give greater importance to their social identity (Collectivist), and to evaluate the

positivity of their social identity using relevant outgroups as the basis for comparison (Relational). Thus, only for these groups would social identification lead to intergroup differentiation in the way predicted by SIT. Therefore, in this cell of the taxonomy the identification-bias association should be the strongest. Following the same rationale, groups that are individualist and autonomous should display instead the lowest identification-bias association; while the other two kinds of groups were expected to show only a moderate identification-bias correlation.

The first experiments conducted by Hinkle and Brown (Brown et al., 1992) to test their model fully confirmed the hypotheses: the variation in the identification-bias correlation was well explained by the two variables collectivism and relational orientation, with correlation coefficients ranging from $r = .79$ to $r = -.05$ in the predicted pattern (see Table 4.1 for the correlations in the four quadrants in the studies included in the meta-analysis). A number of studies followed; some were conducted to test the validity of the model in different cultural contexts (e.g. Brown, Capozza, Paladino, & Volpato, 1996; Kinzel, 1986), or to criticise the taxonomy by proposing alternative explanations (van Knippenberg, 1993), or by adding apparently neglected variables to the group taxonomy (Mizrahi & Deaux, 1997). Some of the studies reported positive findings for the model (Brown et al. 1992; Kanning & Brown, 1995; Aharpour & Brown, 1997) obtaining correlations between identification and bias that were higher in the collectivist/relational quadrant than in the individualist/autonomous one. Others yielded inconsistent results (Torres, 1996; van Knippenberg, 1993) or found very little variation in the association under study, with very similar correlations in all of the four quadrants (e.g. in van Knippenberg's study the identification-bias correlation in the collectivist/relational cell was $r = .44$, relatively identical to the $r = .46$ in the individualist/autonomous cell). Other empirical results reported correlations completely

Table 4.1 Hypothesis test and values of the predictor variables included in the meta-analysis

Study	Cell	Statistic[1]	Z	Collectivism[2]	Relational[3]	Study[4]	Triandis[5]	Hofstede[6]	Gender[7]	Age[8]	Identification[9]	Status[10]	Group[11]	Availability[12]
Brown et al. (1992)	Coll/rel	R = 0.79 [18] {+}	3.389	2	2	2	2	91	1	1	7.13	4	6	1
Study 1	Coll/aut	R = 0.47 [25] {+}	2.369	2	1	2	2	91	1	1	7.13	4	6	1
	Ind/Rel	R = 0.33 [24] {+}	1.574	1	2	2	2	91	1	1	7.13	4	6	1
	Ind/Aut	R = 0.03 [17] {+}	0.114	1	1	2	2	91	1	1	7.13	4	6	1
Brown et al. (1992)	Coll/rel	R = 0.45 [48] {+}	3.208	2	2	2	2	91	n.a.	1	6.60	4	6	1
Study 2	Coll/aut	R = 0.24 [51] {+}	1.696	2	1	2	2	91	n.a.	1	6.60	4	6	1
	Ind/Rel	R = 0.47 [52] {+}	3.515	1	2	2	2	91	n.a.	1	6.60	4	6	1
	Ind/Aut	R = 0.09 [44] {+}	0.580	1	1	2	2	91	n.a.	1	6.60	4	6	1
Brown et al. (1992)	Coll/rel	R = 0.30 [50] {+}	2.116	2	2	1	1	89	3	1	6.78	4	6	1
Study 3	Coll/aut	R = 0.05 [66] {-}	0.398	2	1	1	1	89	3	1	6.78	4	6	1
	Ind/Rel	R = 0.13 [54] {-}	0.936	1	2	1	1	89	3	1	6.78	4	6	1
	Ind/Aut	R = 0.02 [71] {+}	0.165	1	1	1	1	89	3	1	6.78	4	6	1
Van Knippenberg (1993)	Coll/rel	R = 0.44 [26] {+}	2.248	2	2	2	1	80	n.a.	n.a.	n.a.	4	6	2
	Coll/aut	R = 0.60 [24] {+}	3.097	2	1	2	1	80	n.a.	n.a.	n.a.	4	6	2
	Ind/Rel	R = 0.37 [26] {+}	1.860	1	2	2	1	80	n.a.	n.a.	n.a.	4	6	2
	Ind/Aut	R = 0.46 [24] {+}	2.260	1	1	2	1	80	n.a.	n.a.	n.a.	4	6	2
Kanning & Brown (1994)	Coll/rel	R = 0.46 [34] {+}	2.756	2	2	2	2	89	1	1	7.13	5	3	2
	Coll/aut	R = 0.35 [20] {+}	1.526	2	1	2	2	89	1	1	7.13	5	3	2
	Ind/Rel	R = 0.05 [20] {-}	0.230	1	2	2	2	89	1	1	7.13	5	3	2
	Ind/Aut	R = 0.23 [29] {+}	1.243	1	1	2	2	89	1	1	7.13	5	3	2

Table 4.1 (cont.)

Study	Cell	Statistic[1]	Z	Collectivism[2]	Relational[3]	Study[4]	Triandis[5]	Hofstede[6]	Gender[7]	Age[8]	Identification[9]	Status[10]	Group[11]	Availability[12]
Torres (1996)	Coll/rel	R = 0.20 [74] {+}	1.708	2	2	1	2	38	n.a.	n.a.	5.67	n.a.	1	2
Study 1 - Brazil	Coll/aut	R = 0.09 [72] {+}	0.751	2	1	1	2	38	n.a.	n.a.	5.67	n.a.	1	2
	Ind/Rel	R = 0.35 [72] {+}	3.013	1	2	1	2	38	n.a.	n.a.	5.67	n.a.	1	2
	Ind/Aut	R = 0.20 [69] {+}	1.647	1	1	1	2	38	n.a.	n.a.	5.67	n.a.	1	2
Torres (1996)	Coll/rel	R = 0.09 [78] {+}	0.703	2	2	1	2	89	n.a.	n.a.	4.93	n.a.	1	2
Study 2 - England	Coll/aut	R = 0.10 [80] {+}	0.882	2	1	1	2	89	n.a.	n.a.	4.93	n.a.	1	2
	Ind/Rel	R = 0.20 [80] {+}	1.778	1	2	1	2	89	n.a.	n.a.	4.93	n.a.	1	2
	Ind/Aut	R = 0.07 [83] {+}	0.628	1	1	1	2	89	n.a.	n.a.	4.93	n.a.	1	2
Brown, Capozza et al. (1996)	Coll/rel	R = 0.37 [54] {+}	2.753	2	2	1	2	76	1	1	5.06	6	1	1
Study 1	Coll/aut	R = 0.50 [52] {+}	3.773	2	1	1	2	76	1	1	5.06	6	1	1
	Ind/Rel	R = 0.40 [44] {+}	2.689	1	2	1	2	76	1	1	5.06	6	1	1
	Ind/Aut	R = 0.63 [50] {+}	4.900	1	1	1	2	76	1	1	5.06	6	1	1
Brown, Capozza et al. (1996)	Coll/rel	R = 0.46 [59] {+}	3.665	2	2	1	2	76	n.a.	n.a.	5.31	6	1	2
Study 2	Coll/aut	R = 0.04 [44] {+}	0.257	2	1	1	2	76	n.a.	n.a.	5.31	6	1	2
	Ind/Rel	R = 0.37 [47] {+}	2.559	1	2	1	2	76	n.a.	n.a.	5.31	6	1	2
	Ind/Aut	R = 0.65 [59] {+}	5.569	1	1	1	2	76	n.a.	n.a.	5.31	6	1	2
Kinzel (1996)	Coll/rel	R = 0.24 [67] {+}	1.956	2	2	1	2	80	1	1	n.a.	4	5	2
	Coll/aut	R = 0.06 [67] {-}	0.482	2	1	1	2	80	1	1	n.a.	4	5	2
	Ind/Rel	R = 0.03 [80] {-}	0.264	1	2	1	2	80	1	1	n.a.	4	5	2
	Ind/Aut	R = 0.24 [64] {-}	1.910	1	1	1	2	80	1	1	n.a.	4	5	2

Table 4.1 (cont.)

Study	Cell	Statistic[1]	Z	Collectivism[2]	Relational[3]	Study[4]	Triandis[5]	Hofstede[6]	Gender[7]	Age[8]	Identification[9]	Status[10]	Group[11]	Availability[12]
Mizrahi & Deaux (1997)	Coll/rel	R = 0.22 [72] [+]	1.856	2	2	1	1	91	1	1	7.17	3	1	2
	Coll/aut	R = 0.30 [59] [+]	2.308	2	1	1	1	91	1	1	7.17	3	1	2
	Ind/Rel	R = 0.01 [53] [+]	0.071	1	2	1	1	91	1	1	7.17	3	1	2
	Ind/Aut	R = 0.20 [79] [+]	1.767	1	1	1	1	91	1	1	7.17	3	1	2
Aharpour & Brown (1997)	Coll/rel	R = 0.32 [24] [+]	1.524	2	2	1	2	89	2	1	5.79	4	3	2
Study 1	Coll/aut	R = 0.06 [30] [+]	0.314	2	1	1	2	89	2	1	5.79	4	3	2
	Ind/Rel	R = 0.06 [32] [+]	0.326	1	2	1	2	89	2	1	5.79	4	3	2
	Ind/Aut	R = 0.14 [38] [+]	0.838	1	1	1	2	89	2	1	5.79	4	3	2
Aharpour & Brown (1997)	Coll/rel	R = 0.29 [26] [+]	1.436	2	2	1	2	89	1	2	6.39	2	4	2
Study 2	Coll/aut	R = 0.63 [23] [+]	3.219	2	1	1	2	89	1	2	6.39	2	4	2
	Ind/Rel	R = 0.46 [24] [+]	2.260	1	2	1	2	89	1	2	6.39	2	4	2
	Ind/Aut	R = 0.19 [18] [+]	0.754	1	1	1	2	89	1	2	6.39	2	4	2
Aharpour & Brown (1997)	Coll/rel	R = 0.18 [15] [+]	0.641	2	2	1	2	89	2	2	7.48	5	3	2
Study 3	Coll/aut	R = 0.11 [9] [+]	0.281	2	1	1	2	89	2	2	7.48	5	3	2
	Ind/Rel	R = 0.15 [10] [+]	0.554	1	2	1	2	89	2	2	7.48	5	3	2
	Ind/Aut	R = 0.25 [13] [+]	0.823	1	1	1	2	89	2	2	7.48	5	3	2

Study	Cell	Statistic[1]	Z	Collectivism[2]	Relational[3]	Study[4]	Triandis[5]	Hofstede[6]	Gender[7]	Age[8]	Identification[9]	Status[10]	Group[11]	Availability[12]
Aharpour & Brown (1997)	Coll/rel	R = 0.48 [46] {+}	3.375	2	2	1	2	46	2	1	6.10	4	5	2
Study 4	Coll/aut	R = 0.15 [23] {+}	0.683	2	1	1	2	46	2	1	6.10	4	5	2
	Ind/Rel	R = 0.21 [25] {+}	1.007	1	2	1	2	46	2	1	6.10	4	5	2
	Ind/Aut	R = 0.02 [32] {+}	0.108	1	1	1	2	46	2	1	6.10	4	5	2

[1] [N] {direction of effect}.
[2] 1 = individualist, 2 = collectivist.
[3] 1 = autonomous, 2 = relational.
[4] 1 = real group study, 2 = laboratory group study.
[5] 1 = less than half items from Triandis, 2 = more than half items from Triandis.
[6] rank order number given to countries by Hofstede (1994).
[7] 1 = mostly women sample, 2 = even number of genders, 3 = mostly men sample.
[8] 1 = mean age lower than 30 years, 2 = mean age higher than 30 years.
[9] mean identification score of the sample on a 9 point scale.
[10] 1 = ingroup lower in status, 4 = ingroup equal status to outgroup, 7= ingroup superior status.
[11] 1 = category, 7 = group on a 7 point likert like scale.
[12] 1 = published paper, 2 = unpublished manuscript.

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opposite to the model's predictions as in Brown et al. (1996), where northern Italian students evaluated the outgroup of southern Italians and displayed a strong positive association between their identification level and ingroup bias in the individualist/autonomous condition ($r = .63$), but a lower correlation coefficient in the collectivist/relational one ($r = .37$).

So, how could we assess the validity of the model? Using different searching methods, we located 15 studies which tested the main hypothesis of the Hinkle and Brown model. Although this is not a very large number of studies, it is at this point that an effect size meta-analysis (Rosenthal, 1984) becomes a useful tool for summarising results and in condensing findings into a few simple coefficients and indexes. These can then be easily interpreted and lead to a better interpretation of the available literature.

Table 4.2 shows the effect sizes from the results we retrieved from the literature. These values represent the correlations between identification and bias found by the various studies available. The picture offered is not easily summarisable, and thus we considered it worthwhile to perform a meta-analysis so that we could clarify and summarise the many different findings. The meta-analysis helps to determine whether or not the Hinkle and Brown model is actually successful in predicting the identification-bias association.

Table 4.2 Stem and Leaf display of the 60 effect sizes (Pearson's r)

Stem	Leaf
.9	
.8	
.7	9,
.6	0,3,3,5,
.5	0,
.4	0,4,5,6,6,7,7,8,
.3	0,0,2,3,5,5,7,7,7,
.2	0,0,0,0,1,2,3,4,4,4,5,6,6,9,
.1	0,1,3,4,5,5,8,9,
.0	1,2,2,3,3,4,5,5,6,6,6,7,9,9,9

Agreeing with Mullen (1989), we believe that "both narrative research reviews and meta-analytic integrations operate on the implicit assumption that previous studies within a given research domain can illuminate facets of the phenomenon under study, and that the summary and integration of the results of the previous studies should serve to further our understanding of the phenomenon under study beyond the level of understanding achieved with any single investigation" (p. 4).

It is a fairly common experience, though, that the conclusions of qualitative integrations of the literature might be influenced by personal viewpoints and preconceived ideas so that there is sometimes little agreement about the interpretations proposed (eg. Musinger, 1974 and Kamin, 1978 reached different conclusions in their narrative reviews of the effects of environmental factors on adopted children: see Light & Pillemer (1984) for a for a full discussion of this kind of problem).

It is for these reasons that we opted for a quantitative integration of our results. On the one hand, we wanted to enjoy the benefits of an integration of the results of the phenomenon under study (the correlation between identification and bias), these being a clear understanding of the research evidence available, and the opportunity to further investigate the phenomenon by looking at variables not originally included in single studies. On the other hand, though, we also wanted to avoid the limits and inconveniences usually encountered by narrative reviews, such as low precision, subjective interpretations and difficulties with replication.

For those not already familiar with meta-analysis, it is probably useful to spend a few words explaining first what a meta-analysis is. A meta-analysis is a method of statistical analysis where the units of analysis are the results of independent studies, rather than the responses of individual subjects. A meta-analysis works to provide a numerical

summary and integration of separate studies through standardised steps and procedures.

These include (according to Mullen, 1989, chapter 1):

• a definition of the hypothesis test under study;

• the retrieval, carried out through different methods, of studies that tested that specific hypothesis;

• the selection of the studies according to criteria of similarity and comparability;

• the retrieval of additional predictors of the study outcome;

• the reduction of the different statistics used in the single hypothesis tests to a common metric;

• the computation of integrative indices with regard to the central tendency of the effect under study (for both effect size and significance level), the variability of such effect (for both effect size and significance level) and the predictive power of moderating variables.

In contrast to a narrative review, a meta-analysis offers a high level of precision. A narrative review in fact "is ill-equipped to take into account the interrelations between significance levels, sample size and effect size, in the manner of a carefully conducted meta-analysis" (Mullen, 1989 p. 7). The ability of meta-analysis to account for such interrelations makes it a much more precise technique.

As a second advantage over narrative reviews, meta-analyses are undoubtely much more objective. The rules and standards for including studies in the review process, for abstracting results from them, and weighing them in the final integration are never specified in a narrative analysis, while they are strictly controlled in a meta-analysis.

Because of the same rigour in the way a meta-analysis is conducted, objectivity also leads to replicability as a further advantage of meta-analyses over narrative reviews.

Once a researcher has illustrated all the steps followed in the meta-analytic technique, anyone else who wanted to replicate the analysis should obtain exactly the same results and reach the same conclusions.

What we wanted to verify is whether the strongest correlations between identification and bias are consistently found in the collectivist/relational quadrant of the taxonomy, compared to the individualist/autonomous one. Also, through the use of meta-analytic methods it is possible to test the effect of variables not initially considered in the hypothesis tests, and thus to explain the variability of results considering moderating variables (e.g. source of publication, country of provenance of the study, etc.). As Mullen (1989) points out, this is probably one of the strongest advantages of meta-analyses; "to identify, and derive meaningful measures of, variables that can help to predict variation in the significance and magnitude of the hypothesis test included in the meta-analytic data base" (p. 56).

2. Method

In a typical experiment testing the Hinkle and Brown model, measures of collectivism/individualism and relational/autonomous orientation are used to create the four kinds of groups comprised in the model, using a median split technique. Afterwards, the correlation between measures of ingroup identification and some measure of ingroup favouritism is obtained for each cell, and the four correlations are compared. In a second kind of study[1] the initial hypothesis is translated into a regression hypothesis, where the dependent variable, ingroup favouritism, is expected to be

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[1] What really differs is not the kind of study in itself but the way the data are actually analysed. Data from the same study could in effect be tested in both ways.

significantly predicted by the level of ingroup identification, collectivist/individualist orientation, relational/autonomous orientation, and more significantly, by the three way interaction between the three individual predictors. For the studies included in this meta-analysis which used a regression technique, data at a correlational level have been retrieved. For every study included in the meta-analysis, therefore, the four correlations between identification and bias are obtained and the main hypothesis is tested that the higher the level of collectivism and relational orientation, the higher the association between identification and ingroup favouritism.

These 15 studies were retrieved using different sources: from on-line searches of databases (e.g. Psychlit) to paper presentations, unpublished Ph.D. dissertations, manuscripts submitted for publication, etc. Undoubtedly, contact with the two original authors, Hinkle and Brown was extremely useful in the retrieval of the material. The criterion for inclusion of the studies in the meta-analysis was, first of all, the availability of the correlations between a measure of identification with a certain ingroup and a measure of ingroup favouritism (derived from the difference between the ingroup and the outgroup evaluation) for every cell of the model. These correlations were treated as the "dependent" variable in the meta-analysis, and were expressed as the effect size estimate with the relative significance level of a specific hypothesis test (I.e. according to the procedures of meta-analysis). The fact that in some instances, these correlations were not the first theoretical interest of the authors, but were only computed as a second level analysis, did not prevent their inclusion in the analysis, as long as all the measures could be regarded as comparable across studies.

The studies included in the meta-analysis are listed in the left hand column of Table 4.1. Pearson's product-moment correlation coefficients (r), their corresponding Z values of

associated probability and all the other relevant information necessary for the analyses, are also listed in Table 4.1.

In total, the 15 studies retrieved provided 60 hypothesis tests (four for each study retrieved), all of which were independent from each other in terms of participants tested (this is a technical requirement of meta-analysis) representing the responses from a total of 2669 subjects.

Moderator variables

We decided to include eleven moderating variables or predictors in the meta-analysis: _Collectivism/Individualism_ and _Relational/Autonomous_ were the first two predictors included in the analysis. We used the median split categorisation of the original data to define every hypothesis test on these two dimensions. A significant effect of these two predictors, and in particular, their significant positive interaction would confirm the validity of the Hinkle and Brown model, because it would mean that the stronger the collectivist and relational orientation, the higher the correlation between social identification and ingroup bias, as specified by Hinkle and Brown (1990).

All the other predictors served two possible functions: they could be revealed as an alternative dimension (to collectivism and relational orientation) to be used to explain the variation in the identification-bias association (this would be the case if collectivism and relational orientation did not emerge as significant predictors), or they could help in restricting the applicability of the Hinkle and Brown model to specific conditions.

The _Status relationship_ between the ingroup and the outgroup is a variable that has been shown to affect both the level of identification (Ellemers, Van Knippenberg, de Vries & Wilke, 1988; Ellemers, Van Knippenberg, & Wilke, 1990; Sachdev & Bourhis, 1987) and the level of ingroup bias (Mullen, Brown, & Smith, 1992) separately. It was

possible, therefore, that the relative status of the ingroup is a moderator of the level association between ingroup identification and bias, in which it would significantly influence the correlation in this meta-analysis.

Williams (1984) suggested that masculine and feminine senses of ingroup identification are different and some experimental results have shown that the identification-bias association is stronger for men than for women (Mizrahi & Deaux, 1997). *Gender* of the experimental participant is therefore included in the present study as a possible alternative to the Hinkle and Brown predictors. This predictor is used in the current analysis to distinguish between hypothesis tests that used mainly male participants (more than half the sample), mainly women participants, or an approximately equal number of the two.

Can the sense of ingroup identification be different in people of different age? Or can their sense of collectivism or relational orientation be affected by age? In order to answer these questions, we included *Age* as a predictor variable in the meta-analysis, distinguishing between studies in which participants had an average age below or above thirty years.

It has been argued by Van Knippenberg and Coolen (1993) that there is no need to look for variables such as collectivism or relational orientation to understand the variation in the correlations between identification and bias encountered by Hinkle and Brown (1990). The authors proposed that what is causing the variation, and the weak associations especially, is the lack of a strong overall degree of identification with the group in the experimental participants. Van Knippenberg and Coolen claimed, and seemed to demonstrate, that ingroup identification will lead to ingroup bias only in the case when participants strongly identify with the ingroup. For the remaining participants (low identifiers) no correlation between identification and bias should be observed.

What this prediction indicates is a moderating role of the level of ingroup identification in the association between identification itself and bias. So, if their claim is right, a meta-analysis should be able to replicate their findings by revealing that studies in which the overall score of *ingroup identification* was higher yielded a stronger association between identification and ingroup bias.

To confirm the effect of the collectivist dimension we added to the analysis a predictor which is supposed to replicate other measures of collectivism. This is Hofstede's (1980) rank order of countries in terms of their collectivist orientation (we labelled this measure *Hofstede* for convenience). This measure of collectivism is obtained at a cultural level rather than the more common individual level of measurement used in the hypothesis test included in the analysis, and it is therefore informative of the level of generalisation of the measure of collectivism used so far.

Of particular interest in the context of this thesis are potential differences between kinds of groups used in intergroup relations research. We thus decided to consider the *kind of group* involved in the study as a possible predictor, differentiating between real life groups and laboratory groups. The two might be characterised by different motivations and meanings of ingroup identification that could easily be reflected in the association between identification and bias. In previous research, "real" versus "laboratory" kind of groups have also been used as an operationalization of the salience dimension. It was demonstrated that salience exaggerates ingroup members' evaluative perceptions (e.g. Taylor, Fiske, Etcoff and Ruderman, 1978) and therefore ingroup bias (Brewer, 1979). Considering that a real group categorisation is probably more relevant to subjects than an artificial categorisation created in laboratory studies, we would expect real groups to have higher associations between identification and bias. In fact we might reason that the higher the salience of a group, the higher the probability that ingroup members will

rely on that group identification to build their social identity and therefore self image. In support of these predictions are the results of Mullen et al.'s (1992) meta-analysis where members of real groups showed significantly higher levels of ingroup bias than members of artificially created laboratory groups.

Another way of differentiating between kinds of groups was to rate them as being more of a social category or a group. For some time it has been pointed out how social groups and categories might differently meet the predictions of Social Identity Theory (Horowitz & Rabbie, 1989; Rabbie & Horowitz, 1988). Specifically, Rabbie, in his behavioural interaction model (Rabbie & Visser, 1998), proposes that an important characteristic that differentiates between members of a social group and of a social category is the level of interdependence experienced by the group members. A conceptual distinction is made between the two, given that in social groups members share a "common fate", while in a social category people are just a collection of unaffiliated individuals with at least one defining characteristic in common. This difference could be understood, for instance, in terms of the amount of face to face interaction experienced by group members. A social group is like an evolution of a social category, where the basic common external characteristics of the member develop into the feeling of shared experience with other group members. The effects of this difference have been initially shown by Rabbie and colleagues (e.g. Rabbie, 1964; Rabbie & Horowitz, 1969) using minimal groups experiments. Although not free from (sometimes virulent) criticism (e.g. Turner, 1996; Turner & Bourhis, 1996) the results of these experiments showed that members of groups which experienced a common fate and shared common interests produced more affective sociometric intragroup choices and also evaluated themselves in a more positive way than individuals in a simple social category. In this study, therefore, we decided to include this variable as a moderating

element of the correlation between ingroup identification and ingroup bias. Our differentiation between social groups and social categories was mainly based on a post hoc estimation of the amount of face to face interaction experienced by members of the different groups considered in the studies. This because face to face interaction, we thought, would be one of the distinctive elements of social group that favours the development of feelings of common fate and shared experience. In our view, it might be that identification per se is not enough to produce ingroup bias, but that the relationship will exist with the inclusion of the feeling of belonging and common fate that, according to Rabbie, distinguishes between members of social groups and social categories.

The last two moderators included in the analysis were the *number of items from Triandis' scale* of collectivism actually used in each hypothesis test (it could be that consistent results are found across studies due to some confounding between measurements) and the *availability* of the specific hypothesis tests (published or unpublished paper).

All the information regarding nine of the eleven predictors was easily retrievable from the published papers or the unpublished manuscripts we were provided with. Only for two of the moderators (relative status of the ingroup and outgroup, and degree of groupness, as opposed to category) did we consider it necessary to use independent judges' ratings on a continuous rather than categorical scale, to make sure that the indirect information included in the studies was interpreted and coded correctly and with no biased judgement.

Three independent judges were provided with the Method sections of each study included in the analysis (individuating information was omitted to prevent bias toward published or unpublished research or any other sort of characteristic of the study).

Judges were asked to rate on a 7 point scale the relative status of the two groups involved in every study (ranging from "ingroup lower in status" to "ingroup higher in status" through a midpoint where the status of the two groups was rated "equal"). In the same way, the judges had to rate whether the situation evoked in the study involved a social category or a group, again, on a 7-point scale. We defined a social category as "a relatively large number of people sharing some characteristic, either physical or psychological, where there may be not much of face-to-face interaction or mutual acquaintanceship amongst the members". On the other hand, social groups were defined as "a relatively small number of people who are in some relationship to one another and where there is likely to be some face-to-face interaction and mutual acquaintanceship amongst the members".

The interjudge reliability for these ratings was .85 for the relative status position rating; and .95 for the level of groupness rating, thus indicating a high degree of agreement amongst them and well defined judgement criteria.

3. Results

3.1 Combinations of significance levels and effect sizes

Combining the 60 hypothesis tests, the overall ingroup identification-bias association was established, weighting each hypothesis test by its corresponding sample size. We obtained a significant, $Z = 10.787$, $p < .001$, moderate, $Zfisher = .239$, $r = 0.234$ effect. This combination of significance levels and effect sizes answer the question of "what is the typical response " or "what is the average" (and its significance level) of our dependent variable (the identification-bias correlation) across the 60 hypothesis tests? The quite high fail-safe number $Nfs = 3169.427$ ($p = 0.05$), indicates that over 3000 studies averaging no association between ingroup identification and ingroup bias would

be needed before these results could be considered as due to sampling error. This result accurately replicates Hinkle and Brown's (1990) conclusion about the average size of the identification-bias correlation. Moreover, if considering Cohen (1988) guidelins for interpreting effect sizes, we could, at first, interpret this result as a weak correlation between our intended measures of identification and bias.

3.2 Diffuse comparison of significance levels and effect sizes

Nevertheless there is a certain degree of heterogeneity in the statistics reported by these hypothesis tests: both the diffuse comparison of effect sizes (chi-square (59) = 139.825, $p = 2.15 \times 10^{-9}$) and the diffuse comparison of significance levels (Chi-square (59) = 123.554, $p < .001$) were significant, indicating the likelihood of some additional variable affecting the identification-bias association, and causing the heterogeneity of the size effects and significance levels in the 60 hypothesis tests. These results confirmed the necessity of conducting further analysis in the form of focused comparisons and moderating analyses.

3.3 Impact of moderator variables on the identification bias association

As a result of having included eleven moderating variables, there are many main and two way interaction effects that we should report and discuss. However, for reasons of brevity, we will only report the significant ones or the ones we consider more informative.

Focused comparisons of significance levels and effect sizes

Out of the 11 predictor variables tested, six were revealed to have a significant effect. This emerged through the use of focused comparisons, a focused comparison of either

significance levels or effect sizes. In this analysis we address the question: "To what extent do the significance levels and effect sizes (in the hypothesis tests) vary in meaningful, predictable ways as a function of practically important or theoretically illuminating variables?" (Mullen, 1989 p. 87)

When we report the results of this analysis, the first Pearson coefficient informs us of the correlation existing between the size of the identification-bias correlation (our dependent variable) and the degree, for instance, of collectivism of the sample (the independent or moderating variable). The p value corresponding to the first Z value, is the likelihood that the effect sizes of the 60 study outcomes varied as a function of the predictor variable (in this case individualism-collectivism). The p value associated to the second Z value, instead, is the likelihood that the significance levels of the 60 study outcomes varied as a function of the predictor variable.

Results showed that the more collectivist[2] the groups the stronger is the identification-bias association, $r = .21$, $Z = 2.143$, $p = 0.016$ for the focused comparison of effect sizes and $Z = 1.9$, $p = 0.026$ for the focused comparison of significance levels. In this case, the hypothesis tests have larger effect size in collectivist compared to individualists samples (Rcoll = .26; Rind = .20)

In the same way, the more the groups show a relational orientation, the stronger is the association between identification and bias; the correlation between Fisher's Z and relational orientation being $r = .15$, and $Z = 1.423$, $p = 0.07$ (only marginally significant) for the focused comparison of effect sizes, and $Z = 1.79$, $p = .036$ for the focused comparison of significance levels (Rrel = .27; Raut = .19).

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[2] In the coding system, 1 = individualist, 2 = collectivist, for the collectivist orientation and 1 = autonomous, 2 = relational for the relational orientation.

The main effect of status[3] on the identification-bias association was also significant, r = .20, with Z = 2.575, p = 0.005 for the focused comparison of effect sizes and Z = .854, p = 0.031 for the focused comparison of significance levels. This means that the higher correlation between identification and bias is shown by members of groups of high status, compared with members of groups of equal status to the outgroup (Rhi = .40 ; Rlow = 18).

Contrary to Mizrahi and Deaux's findings (1997), our results showed that women have a stronger identification-bias association than men, r = -.29, Z = 2.73, p = 0.003 for the focused comparison of effect sizes and Z = 4.158, p = 1.61 x 10^{-5} for the focused comparison of significance levels (Rfem = .25; Rmale = .03).

As far as different kinds of groups are concerned, the kind of study (laboratory or real group) categorical differentiation had significant effects, r = .31, Z = 2.00, p = 0.001 for the focused comparison of effect sizes, and Z = 1.98, p = 0.023 for the focused comparison of significance levels. Studies using laboratory groups obtained stronger identification-bias correlations than those testing real life groups (Rlab = .37; Rfield = .21).

Also the level of "groupness" produced some significant effect, that is only a significant focused comparison of significance levels with Z = 1.97, p = 0.023 (Rcat = .25; Rgroup = .19).

Two way interactions

Several two way interactions were tested. The most interesting combination between moderators, in terms of the Hinkle and Brown model is, of course, the two way interaction between collectivism and relational orientation. Results showed a significant

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[3] The relative status of ingroup and outgroup was coded so that a higher score (on a 7 point scale) represented a higher position of the ingroup relative to the outgroup.

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interaction between these two moderators, r = .26, Z = 2.583, p = 0.004 for the focused

comparison of effect sizes, and Z = 2.63, p = 0.004 for the focused comparison of

significance levels. As we can see from Table 4.3, this result shows that the average

result of the studies testing the model confirms its validity. The average correlations

between identification and bias are higher for the collectivist/relational hypothesis tests

(r = .33, Z = 7.871, p= 9.46 x 10^{-15}), and lowest in the other three quadrants:

individualist/autonomous (r = .20, Z = 4.753, p= 1.02 x 10^{-6}), collectivist/autonomous

(r = .20, Z = 4.086, p = 2.2 x 10^{-5}), and individualist/relational (r = .21, Z = 4.794, p =

8.39 x 10^{-7}).

Table 4.3 The average correlations in the cells of the Hinkle
and Brown model resulting from the meta-analysis (r).
* significant at a p <.001 level

	Autonomous orientation	Relational orientation
Individualists	r = .20*	r = .21*
Collectivists	r = .20*	r = .33*

However, despite the significance of this two way interaction, note that the mean

correlations in three of the four quadrants are not that different in size. Also, each of the

four mean correlations (combinations of effect sizes and significance levels) showed a

significant effect of diffuse comparisons meaning, once more, that the average

correlations inside the four quadrants of the model are not homogeneous. In sum, there

is further heterogeneity in the data set that can be explained by additional predictor

variables. This is also confirmed by the fact that three other predictors (status, level of

groupness, and kind of study) also produced two-way interactions with the predictors

collectivism and relational orientation. Therefore, we conducted further analyses with the objective of investigating whether the general picture shown in Table 4.3 could be improved still further, revealing the existence of higher order interactions between the significant moderators found so far. What we expected to find at this point was that the pattern of correlations in the cells of the model would be different once reproduced separately for different subsamples, the ones originating from the predictors status, and level of groupness.

Subsample analyses

The previous analysis revealed not only a significant interaction between the predictors collectivism and relational orientation, in support of the Hinkle and Brown model, but also significant interactions between these two predictors and additional ones: relative group status, kind of study (a significant interaction was observed for this predictor variable only relative to the effect of the focused comparison of significance levels, and therefore it has been excluded from further analyses), and kind of group. In order to further examine the pattern of identification-bias correlations in more detail, we then produced separate tests of the model for subsamples[4] of the data set: social categories versus social groups; and status of the ingroup equal or superior to the outgroup.

In Table 4.4 we can see how the pattern of average correlations in the four quadrants of the Hinkle and Brown model is reproduced separately for studies judged to use social categories versus groups. Only in studies that used social groups is the pattern of correlations predicted by Hinkle and Brown verified: The correlation between identification and bias in the collectivist/relational quadrant is significantly higher than the correlation in the autonomous/individualist one (where in fact identification and bias

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[4] The subsamples are obtained by using a categorical classification of the studies on these measures. The midpoint of the scale is used to discriminate the two categories.

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have a very low correlation). In the "category" condition the correlations in the four

Table 4.4 Correlation coefficient between identification and bias in the cells of the Hinkle and Brown model, separately for the studies using categories or groups.
** significant at a p <.001 level

	Category N = 8 studies		Group N = 7 studies	
	Autonomous orientation	Relational orientation	Autonomous orientation	Relational orientation
Individualists	r = .30**	r = .23**	r = .04**	r = .19**
Collectivists	r = .27**	r = .28**	r = .18**	r = .39**

quadrants show very little variation and therefore do not confirm the Hinkle and Brown

predictions. However, it is also worth noticing than in the category condition, because

of the main effect discussed earlier, all the correlations appear to be higher (we don't

know if significantly) than those in the group condition.

Table 4.5. Correlation coefficient between identification and bias in the cells of the Hinkle and Brown model, separately for the studies using equal or superior relative status conditions of the ingroup
** significant at a p <.001 level

	Equal N = 6 studies		Superior N = 5 studies	
	Autonomous orientation	Relational orientation	Autonomous orientation	Relational orientation
Individualists	r = .01**	r = .15**	r = .47**	r = .25**
Collectivists	r = .15**	r = .40**	r = .37**	r = .39**

In the same way we can see in Table 4.5 that only for those studies using groups of

equal status is the pattern of correlations the one predicted by Hinkle and Brown. Here

as well, the identification-bias correlation is stronger in the collectivist/relational cell

and lowest in the individualist/autonomous cell. In the superior status condition we observe very little variation between the coefficients. These last results provide important information about the kind of conditions that support the Hinkle and Brown model. Once more though, this result has to be interpreted in the light of the main effect of status which causes the correlations in the superior status condition to appear stronger than those in the equal status condition.

4. Discussion

In this study we analysed the results of 15 different studies conducted to test the predictions of the Hinkle and Brown (1990) model. With this meta-analysis we tried to find out the extent to which the model had been successful in explaining the variations in the correlation between identification and bias. The first result we obtained was an "average" identification-bias correlation, reported by the different studies included in the analysis, of around .24, while Hinkle and Brown reported $r = .20$. It was very important that we were able to replicate clearly this finding with the inclusion of different studies, as this is a first indirect support of the validity of the model itself. Had we obtained a significantly different average correlation, we might have argued that Hinkle and Brown's initial finding was not stable and that therefore we could not be sure about the necessity of their taxonomy. So, once more, we are in the position of questioning the validity of the assumptions, derived by Hinkle and Brown from SIT, that the more ingroup members are identified with their ingroup, the more they show ingroup bias. On one hand, we could follow Hinkle and Brown's argument and interpret the average effect size of .24 as a weak one (Cohen, 1988), but, on the other hand it is also true that in meta-analyses, and, in general, in psychological research, even phenomena that are largely and strongly established rarely reach very high effect sizes

if we stick with Cohen's interpretations. We therefore prefer to argue that even though we found a significant relationship between identification and bias, the variation around this result is so large (as reflected in the diffuse comparison of effect size and significance level) that we are interested in knowing what is the origin of this variation. This, at the same time, will also help us to understand in more detail the reasons of the observed correlation between identification and bias.

The second result we obtained was that the two dimensions (collectivist and relational orientation) proposed by Hinkle and Brown in answer to the above problem are indeed significant moderators of the identification-bias association. Higher values of this association are found for groups that report collectivist and relational orientations. This result supports the validity of the model and implies that, in general, the different results obtained by research testing the model are in line with its prediction.

However even in the case of collectivist-relational groups, the average identification-bias correlation obtained is only $r = .33$ and, again, there is some variability around this value (significant diffuse comparison of effect size and of significance level). What we found is that other dimensions have emerged from the analysis as additional moderators of the identification-bias correlation. Once further tests of the model were conducted for ingroups of "equal" versus "superior" status and identified as "groups" versus "categories", the pattern of correlations predicted by the model was found only for "groups" of "equal" status. In these conditions, the highest correlation observed was of $r = .40$. At the same time though both variables, status and level of groupness, had a significant main effect on the level of identification-bias association. When examining the pattern of correlations considering these additional moderators, our conclusions about the validity of the model we intended to test should, somehow, be moderated. The Hinkle and Brown model can be said to be verified given that collectivist and relational

orientations do moderate the identification-bias correlation, as the groups which have these orientations are centred on the norms, values, and goals of the groups, and also evaluate themselves by comparing to other groups. At the same time though, there are _other_ variables that can explain some of the identification-bias variability. Identification is altogether more strongly associated with bias when the two interacting entities are closer to a category than to a group and when the relative status of the ingroup is superior. In these circumstances we observe relatively high and stable levels of associations beween identification and bias. In the other two conditions instead, when the entities involved are considered as groups and when the relative status of the ingroup is equal to the outgroup's, then we observe variations in the association between identification and bias and, in these conditions, such variation can be explained using the taxonomy proposed by Hinkle and Brown.

But why are groups with high degrees of groupness and of equal status with the outgroup the ones where we observe different levels of identification-bias correlation?

One way of interpreting this result is to look at an interpretation of the differences between groups and categories different from the one offered by Rabbie (1998, 1964; Rabbie & Horowitz, 1969). While Rabbie distinguishes social groups as opposed to social categories, on the basis of the level of common fate and therefore face-to-face interaction, Prentice, Miller and Lightdale (1994) see Rabbie's "categories" as "common identities groups" where group members are more attached to the group identity than to the individual group members; and Rabbie's "groups" as "common-bond groups", where group members are attached directly to other group members rather than to the identity of the group itself. Following Prentice et al.'s (1994) interpretation of the differences between categories and groups, we can understand the overall higher levels of identification/bias correlation in the category condition as a

reflection of the attachment of group members to their group identity, where the mantainance of a positive social identity becomes particularly important. In the group condition instead, Prentice et al. (1994) emphasise the personal relationship between single members and the low importance of the identity of the group. In this situation we then observe a high variation in the identification-bias association, and only by introducing the dimensions of the Hinkle and Brown model we can observe group members who, thanks to particular cultural and dispositional dimensions, value their group identity and therefore display the identification-bias correlation we were investigating.

A similar kind of logic could be used to explain the complex results found in the two status conditions. In the superior status condition, the overall higher levels of identification-bias association can be interpreted as the result of group members' effort to protect their superior and positive identity by derogating an outgroup, in full accord with SIT predictions. In the equal status condition however is more difficult to understand why we observe a variable identification-bias association and why this variation is moderated by the collectivist and relational dimensions. We could argue that equal status conditions do not instigate any conflictual comparison between groups unless these are relationally oriented and collectivist. And, given that intergroup comparison is one of the conditions required by SIT in order to observe identification-bias correlation, we could then understand why the Hinkle and Brown pattern is observed only in the equal status condition.

All the above results and interpretations including the dimensions of status and groupness, however, resent of the fact that these variables were not originally manipulated in the studies. We therefore can only assume that participants in the studies

actually perceived the situation in the way described by ours and the external judges' ratings. In order to get a more clear understanding of the variables we examined in this meta-analysis (collectivism, relational orientation, status, level of groupness) as moderators of the identification-bias association, in the next chapter, we will describe an experimental study appositely designed to clarify and replicate the results of this meta-analysis.

In conclusion the main results of this study, the ones that can be considered as sufficiently clear are the main effects of collectivism and relational orientation as moderators of the identification-bias correlation, and their significant interaction. Taken together these results confirm the validity of the model proposed by Hinkle and Brown and consequently our initial hypotheses.

Chapter 5

A follow-up study:

When is the Hinkle and Brown model more valid ?

1. Introduction

In the previous chapter, the results of a meta-analysis conducted on 15 studies confirmed Hinkle and Brown's (1990) hypothesis of a stronger correlation between identification and bias for those groups with a collectivist and relational orientation, relative to groups with an individualist and autonomous orientation. This, however, was shown to be true only when members of social "groups" (rather than "categories") make judgements about another "equal" status group. The evidence suggests that the taxonomy proposed by Hinkle and Brown, although generally successful in explaining the variability in the identification-bias association, seems to be less relevant than other situational variables in creating the conditions under which SIT principles are applicable.

The demonstration of the relationship for "equal" status groups only is consistent with Festinger's (1954) propositions about the most likely referents for social comparison. His argument was that, if the differences between the self and the external term of comparison are too big, the comparison is not meaningful; in general, individuals find it more diagnostic to compare themselves to people quite similar to them (Festinger, 1954; Crosby, 1982; Major & Forcey, 1984). Similarly, in the case of a very different status relationship between ingroup and outgroup the comparison referent may be too distant

for ingroup members, and even groups with a relational orientation will not make use of social comparison in the way predicted by SIT. On the other hand, in those situations where the relative status of the groups is equal, the ingroup will find a similar and meaningful term of comparison in the outgroup proposed and, under these conditions, the relational orientation will be fully "activated" and will moderate the relationship between level of ingroup identification and ingroup bias in the way predicted by Hinkle and Brown.

Similarly, the extent to which the ingroup can be considered a "group" rather than a category will interact with the collectivist/individualist orientation of ingroup members. Although an individual from any culture may have a certain collectivist or individualist orientation as Triandis (1995) specifies, having a collectivist orientation does not imply an indiscriminate tendency to identify with any kind of group or to feel at ease whatever the social situation. It is rather true that collectivist individuals follow the rules, goals and norms of a very few meaningful groups. There are some conditions that need to be satisfied before a group can become a source of social identification, and this is even more true for collectivist than individualist individuals. In fact, "collectivists have few ingroups...[they tend to have]... few but intimate relationships" (Triandis, 1995, p. 110) and therefore which groups we consider in the experimental setting become very important when the variable collectivism is under study.

So we hypothesised that only when individuals' sense of identification is measured toward a group which has the characteristics of a group rather than a social category (e.g. face-to-face interaction, a certain degree of interaction between members, external recognition of being a group member, etc.) would the collectivist social orientation have the opportunity to be "activated" to become a meaningful determinant of ingroup

members' social behaviour. Only in these instances can we expect a collectivist orientation to have a moderating effect on the association between identification and bias and therefore to find support for the predictions of the taxonomy proposed by Hinkle and Brown.

It might be argued that the meta-analysis already provided us with these conclusions, and, if we only trusted its results, we would not think it necessary to replicate these findings.

But, Mullen (1989) warns that the quality of the results of a meta-analysis depends on the quality of the data set used. If the data set is not representative, or if one awkward (in terms of methodology used, or very different results) study is included in the meta-analysis, this could influence the overall result. So, in our case, if the effects of the moderator variables we found was only due to the influence of one or two studies in the meta-analysis, we would have the false impression that these moderators are significant in every experimental context. Although one can defend against this possibility by conducting a very careful selection of the hypothesis tests included in the analysis, follow-up studies provide an even better test of the soundness of the conclusions of the meta-analysis. In fact, we are also aware that a meta-analysis is only capable of making post hoc interpretations. We therefore feel that, in order to eliminate any doubt about the reliability of the conclusions we draw, an experimental replication would be more appropriate. A cross validation of the results of the meta-analysis could, in fact, have a positive effect on the validity of this method. If an experimental study managed to replicate the meta-analysis' results, we would then have a stronger argument in support of its use and, at the same time, a very reliable result for our investigation, which is exactly our goal.

A more compelling reason for conducting a follow-up study is that it is not always correct to infer causality from a significant effect of a moderating variable in a meta-analysis (Cooper, 1984). Despite Mullen's argument that a spuriousness problem (the eventuality that a third non-controlled variable highly correlated with the predictor variable is the real cause of the variations observed in the dependent variable) is not always critical, he himself recognises this risk, and suggests caution when inferring causality from patterns observed in a meta-analysis.

This question of causality could be addressed by an experimental replication of the findings we just discussed. So, therefore, in order to test our hypotheses, derived from the results of the meta-analysis, we conducted a study where participants were randomly assigned to one of four experimental conditions in which the relative status of ingroup and outgroup was varied together with the extent to which the ingroup could be considered a "group" or a "category".

One might be surprised at the size of N used in this study and think that the use of a large sample size might be a strategy used to increase the power of the analysis and to obtain significant results in the presence of a really very small effect. But if we take a closer look at the experimental conditions necessary for the testing of our hypothesis, we then see that the combination of the two manipulated variables (status and groupness) and of the two dimensions of the model (collectivism and relational orientation) would produce 16 different cells. Then, considering that the main dependent variable in this kind of studies is the correlation between ingroup identification and ingroup bias, we would realise that the 50 subjects per cell that we obtain, are needed in order to detect even a small effect, which is to say to give sufficient power tot he analysis.

Our hypotheses were that the collectivist and relational orientations would be significant moderators of the identification-bias association (which are the predictions of the Hinkle and Brown model) only in the case of an equal status relationship between ingroup and outgroup, and also only when the ingroup has the characteristics of a "group" rather than those of a "category". It would in fact be only under these conditions that the collectivist and relational orientation can be meaningfully activated and used in the social processes that lead from ingroup identification to ingroup bias according to the principles of social identity theory.

2. Participants and Procedure

The participants in this study were 833 undergraduate Psychology students from the University of Padua (Italy); 709 females and 124 males, with ages ranging from 19 to 47 years (Mean = 22 years).

In order to keep the experimental conditions as controlled as possible, participants were approached in their classrooms at the end of a lecture and asked to fill in a questionnaire containing all the independent and dependent measures. At the end of the time allocated for the questionnaire, participants were debriefed and allowed to ask questions regarding the study. There were four formats of the questionnaire, all identical except for the independent measures that created the four conditions of the study. Participants were randomly assigned to one of the four experimental conditions.

At the beginning of the questionnaire, before any independent variable was introduced, participants answered a scale for the measurement of the collectivist/individualist and relational/autonomous social orientation. The 32 items of the collectivism/individualism scale and the 15 items of the relational/autonomous orientation scale were the ones

generally used in the previous studies testing the Hinkle and Brown model (e.g. Brown et al. 1992; Brown et al., 1996) and originally derived from Triandis et al.'s (1988) scale of collectivism/individualism.

The first difference in the questionnaires was introduced when participants received information about the results of a previous study and were informed about the relative status position of two groups, psychologists and accountants, on four dimensions. Accountancy students were chosen as a relevant outgroup for psychology students following results from previous studies where these groups were used (Kanning & Brown, 1994). The relevance of the same outgroup also for Italian students was confirmed by the results of a pre-test conducted on a sample of 15 Italian students studying at the University of Kent. When asked to rate members of these groups (psychology and accountancy students) on a series of traits, participants found the task easy and meaningful, expressing a good knowledge of the two groups' characteristics.

In the "superior status" condition, psychologist were said to be rated higher than accountants on the dimensions: communication skills, patience, empathic skills and scientific work content; in the "equal status" condition psychologists were rated equal to accountants on the dimensions: level of education, attention to detail, decisiveness and intelligence. Once more, this information was subjectively accurate as it had emerged from a pre-test conduced with both English (Kanning and Brown, 1994) and Italian students.

On the next page, in order to provide manipulation checks, participants were asked to summarise the results they had been presented with and to cross one of the three options representing the relative status of psychologists and accountants.

The participants' perception of stability, mobility and legitimacy of the status

relationship between the two groups was measured via six items originally formulated

and validated by Kanning and Brown (1994) for similar research. These measures were

introduced as a way of checking the influence of socio-structural variables on prediction

relative to social identity theory (Ellemers, van Knippenberg, and Wilke, 1990).

At this point, the second independent variable was manipulated and half the participants

were instructed to consider their membership of the specific group of "psychologists"

when answering the following questions. This created the "category" condition,

compared to the "group" condition, in which the other half of the participants was asked

to consider their membership of a different group, the informal group of people with

which they used to "...study, revise for exams, have lunch with at the university, and

similar", addressing to it as their "study group". In both conditions however, the ingroup

was composed of psychology students, therefore eliminating any possible effect of the

discipline studied by the members of the group. What changed was only the <u>size</u> and the

<u>quality of the social interaction</u> that is likely to take place between students of the same

faculty opposed to members of the same small study group.

Subjects then filled in a 10-item scale, carefully adapted (Brown et al. 1996) from

Brown et al. (1986), that measured ingroup identification.

In the next two pages of the questionnaire participants found a semantic differential

comprising 14 adjectives on which they had to evaluate their ingroup and an outgroup.

In the "category" condition the stimulus word for the ingroup was "psychologists" and

the stimulus word for the outgroup was "accountants"; in the "group" condition the

corresponding stimulus words were respectively "my study group" and " a study group

in accountancy".

The last measure of the questionnaire was a six item scale that measured the affective

component of the subjects' attitude toward the outgroup. All the items were measured on a 7 point Likert-like scale and in all the sub-scales the number of items with positive and negative wording was balanced.

3. Results

A principal component analysis on the 32 items measuring the collectivist orientation of participants suggested the existence of four separated factors (eigenvalues greater than 1, and varimax rotation). The concepts that emerged as components of the collectivist orientation refer to: the possibility of deriving personal benefits from the success of the group or of another member of the group (Factor 1, named success and results); the importance of maintaining agreement and harmony inside the group (Factor 2, named agreement); the advantages of a co-operative climate inside the group (Factor 3, named cooperation); and the belief in the group norms and in their importance (Factor 4, named group norms). We nevertheless decided to use the full scale as a measure of collectivism given the difficulties implied in choosing one single aspect to represent what, in fact, is a composed concept. The reliability of the whole scale was alpha = 0.76 and the mean score reported by subjects M = 4.08 (s.d. = .54) which, even though significantly different from the midpoint (probably because of the large sample size), can still be considered an intermediate score expressing a social orientation that is neither collectivist nor individualist.

The relational orientation scale was factor analysed and a one factor solution emerged. This permitted the computation of a general score of relational orientation with a good reliability (alpha = 0.86) and a mean of M= 3.4 (s.d. = .97) – i.e. a slightly autonomous tendency overall.

Checks on the status manipulation confirmed the success of the manipulation: only a small number of participants in each condition (from 17 to 37) did not summarise the information provided in a correct way, and no consistent preference for other alternatives was shown by them.

A general score of ingroup identification (see Table 5.1) was computed in each condition (alpha coefficients ranging from 0.71 to 0.87 in the four conditions) and a 2x2 between subjects analysis of variance showed no significant effects (all Fs < 1, n.s.).

A single index of ingroup bias was computed from the semantic differential ratings. First of all, 14 different measures of ingroup bias were obtained by subtracting the outgroup evaluations from the ingroup evaluations on corresponding adjectives. Then, following factor analyses that revealed a unifactorial structure of the scale, a single score was obtained averaging the 14 partial scores (reliability alpha = .88). Given that the polarity of some adjectives had been inverted prior to the analyses, a positive score on this final measure expressed ingroup favouritism and a negative one, outgroup favouritism, with a possible range of +/- 7 (See table 5.1 for cell and marginal means of the bias scores). A 2x2 between subjects analysis of variance showed no effect of the two independent variables (all Fs < 1, n.s.).

These two first results confirm what has already been found in other tests of the Hinkle and Brown model. We refer to the fact that, despite being in different group conditions, (different status, level of groupness, collectivist and relational orientations) participants show the same levels of identification with the ingroup and the same levels of ingroup bias (which is different from zero in all conditions). This initially unexpected finding has now been replicated several times (e.g. Torres 1996) and represents one of the most puzzling aspects of the research conducted in this area. Why is it that identification and

bias do not vary across conditions but the correlation between these two measures does? What is the cause of intergroup bias in those group conditions where it is not correlated with ingroup identification ?

Table 5.1 Means and standard deviations of the ingroup identification and ingroup bias scores.

	Category		_Group_		_Marginal means_	
Equal	Ident.	Bias	Ident.	Bias	Ident.	Bias
	5.28	0.68	5.29	0.67	5.28	0.67
	(.83)	(.62)	(1.03)	(1.03)	(.94)	(.85)
	N=189	N= 185	N = 208	N= 191	N = 397	N= 376
Superior	Ident.	Bias	Ident.	Bias	Ident.	Bias
	5.32	0.68	5.37	0.56	5.35	0.62
	(.76)	(.74)	(.88)	(.92)	(.82)	(.83)
	N = 214	N= 205	N = 214	N= 206	N = 428	N= 411
Marginal means	Ident.	Bias	Ident.	Bias	Ident.	Bias
	5.30	0.68	5.33	0.61	5.32	0.64
	(.79)	(.68)	(.96)	(.97)	(.88)	(.84)
	N = 403	N= 390	N = 422	N= 397	N = 825	N= 787

The meta-analysis we conducted was unable to test for interaction effects between the two moderating variables and the dimensions of the model, as this would have meant a four way interaction, which the software we used was unable to test . But in this analysis, besides considering the effect of the two factors (level of "groupness" and relative "status") separately, it is possible to look at the joint effect of these two independent variables. In Table 5.2, therefore, we report the four separate tests of the Hinkle and Brown model conducted on participants who had been randomly assigned to

one of the four experimental conditions. This is of course a very complex set of results, but in order to make sense of it we have to remember that what we are interested in, with this analysis, is the comparison of the patterns of identification-bias correlation in the four experimental conditions. What we are looking for, according to the hypotheses derived from the meta-analysis, is a stronger fit for the Hinkle and Brown predictions in the equal/group condition.

Looking at Table 5.2, we find that in the superior/group and in the superior/category conditions (which means in both the superior status conditions) the Hinkle and Brown model does not receive much support at all. In both cases in fact the magnitude of the correlations does not differ that much from cell to cell, and it never reaches very high or low magnitudes in any cell.

Table 5.2. Correlation coefficient between identification and bias in the cells of the Hinkle and Brown model, separately for the four experimental conditions in the study.
* p< .05
** p< .01

Status condition		Category condition		Group condition	
		Autonomous orientation	Relational orientation	Autonomous orientation	Relational orientation
Equal	Individualists	r = .22	r = .28	r = .50**	r = .43**
	Collectivists	r = .37*	r = .56**	r = .32	r = .17
Superior	Individualists	r = .34*	r = .18	r = .30*	r = .38*
	Collectivists	r = .38*	r = .40**	r = .22	r = .13

But if we look at the other two experimental conditions, those with an equal status relationship between ingroup and outgroup, we see that the pattern of correlations in the cells of the model is in contrasting directions. While in the equal/category condition, the identification bias coefficient is stronger in the collectivist/relational cell (r = .56, p<.001, N = 43) than in the individualist/autonomous cell (r = .22, p< .126, N = 51) Z= 1.91, p< .03; in the group/equal condition the correlation in the individualist/autonomous cell (r = .50, p < .001, N = 55) is stronger than in the collectivist/relational cell (r = .17, p< .216, N = 57) Z= .192, p<. 03.

So, altogether we have very complex results which only partially confirm the hypotheses derived from the meta-analysis. While we were looking for a significant moderating effect of collectivism and relational orientation in the equal/group condition, this was instead produced in the equal/category condition.

Looking at the main effects of "groupness" and "status" separately we obtain the results shown in Table 5.3 and 5.4. From Table 5.3 we can see that the size and the direction of the correlation coefficients between ingroup identification and ingroup bias is the one predicted by the model in the "category" condition: there is a (marginally significant Z = 1.41, p<.08) stronger correlation identification-bias in the collectivist/relational cell (r = .46, p< .001, N = 100) than in the individualist/autonomous cell (r = .29, p< .001, N = 108). On the contrary, the pattern of correlations in the "group" condition is completely reversed and contradicts the predictions of the model: the identification-bias correlation is stronger in the individualist/autonomous cell (r = .40, p< .001, N = 109) and weaker in the collectivist/relational cell (r = .15, p<. 100, N = 119), with the difference between the two coefficients being significant (Z = 2.03, p<. 03).

Table 5.3. Correlation coefficient between identification and bias in the cells of the Hinkle and Brown model, separately for the category and group conditions.
* = p< .05
** = p< .01

	Category condition		Group condition	
	Autonomous orientation	Relational orientation	Autonomous orientation	Relational orientation
Individualists	r = .29* N = 108	r = .22* N = 78	r = .40** N = 109	r = .40** N = 75
Collectivists	r = .36* N = 80	r = .46** N = 100	r = .31* N = 73	r = .15 N = 119

In Table 5.4 we can observe that this time the manipulation did not generate reversed patterns of correlations in the two condition, but still we notice the presence of a different sizes correlations in the four cells of the "equal status" condition. Unfortunately though, this are contrary to the predictions of the Hinkle and Brown model;

Table 5.4. Correlation coefficient between identification and bias in the cells of the Hinkle and Brown model, separately for the equal or superior relative status conditions.
*   p< .05
** p< .01

	Equal status		Superior ingroup status	
	Autonomous orientation	Relational orientation	Autonomous orientation	Relational orientation
Individualists	r = .42** N = 104	r = .38* N = 66	r = .31* N = 113	r = .27* N = 87
Collectivists	r = .32* N = 72	r = .30* N = 100	r = .26* N = 81	r = .23* N = 119

in fact, the correlation coefficient between identification and bias is stronger in the individualist/autonomous cell (r = .42, p< .001, N = 104) than in the collectivist/relational cell (r = .30, p< .05, N = 100), but such difference is not significant (Z = .96, p<. 179).

4. Discussion

Following the results of a meta-analysis conducted on 15 studies testing the validity of the Hinkle and Brown (1990) model, we hypothesised that only in the case of an equal status relationship between ingroup and outgroup and only when a group rather than a social category was used as a reference for ingroup identification, would the predictions of the model be verified. In our view, the collectivist orientation of experimental subjects could have an effect on the identification-bias correlations (as initially proposed by Hinkle and Brown) only when identifying with a group rather than with a social category. This would happen because only a collection of people with the social characteristics of a group can answer the needs of an individual's collective orientation. On the other hand we hypothesised that only in the case of an equal status relationship between ingroup and outgroup would a social comparison process be activated by ingroup members with a relational orientation, given that the outgroup members would not constitute a relevant comparison group.

Despite the fact that these hypotheses were derived from the compelling results of a meta-analysis, and that they therefore summarised the outcomes of other studies, the results of this study din not fully replicate the ones obtained from the meta-analysis.

The general finding of the study is that the Hinkle and Brown model indeed received different support in the different conditions of the study. This supports the validity of

the two factors considered as moderators of the effect of the collectivist and relational orientation used in the Hinkle and Brown's taxonomy. The bad news, though, is that, while the results of the meta-analysis and therefore our hypotheses expected a better fit for the model in the equal status/group condition, the present study shows the pattern of correlation predicted by the model in the equal status/category condition. On the other hand in the equal status/group condition, the pattern of correlations is in fact opposite to the one expected by Hinkle and Brown. Moreover, while in the meta-analysis we found overall stronger correlations in the higher status condition, this was not the case in this experimental study.

There are various conclusions that can be drawn from this study: on the one hand, we could criticise the validity of the meta-analysis technique. Why is it that those moderator variables that emerged significantly from a meta-analysis did not produce the same results once they are experimentally manipulated in a separate study? It could be that the information retrieved from the hypothesis tests did not actually represent the variable they meant to measure; which is to say that the judges' ratings (despite being reliable) were not valid, and therefore what was measured in the meta-analysis as the level of groupness did not correspond to the manipulation used in the follow-up study. On the other hand, we could reverse the argument, saying that the judges' rating were correct and that the experimental manipulation was at fault. Unfortunately, we have no way of supporting one or the other interpretation, given that no manipulation check on the second independent variable was included in the study, so we do not know how many of the participants in the group or category condition really felt that way. We can only suppose that probably, for some reason, in this study, participants in the category condition were actually feeling as though they belonged to a social group more than the

ones in the group condition. In the first condition the ingroup used was that of psychologists, and despite our intention of creating a "category" condition, it might be that participants interpreted those circumstances (being addressed as a single entity in the class where they knew and were familiar with most of other people) as characterising a group situation. The fact of being physically together with other members of that group at the moment of the experiment, and sharing with them that experience, might have been more significant as a group situation for these participants, than referring to a study group (the ingroup we chose for the "group" condition). The latter, in fact, was probably at that moment a non-relevant ingroup and as such didn't really activate the group reality that we meant to create. However, this does not solve the whole problem, and only explains the results in the category condition. In fact, even though it might have happened that participants in the experimental conditions experienced levels of groupness that were not quite those we intended to produce, how can we justify results completely opposite to the ones we expected in the "group" condition ? In other words, even if we can imagine that participants in the "category" condition felt more of "group" than we imagined, how could it be that a group as "my study group" can be experienced as a "category"?

A possible alternative explanation for this result is obtained following Prentice et al. (1994) description of the kind of attachment to the group that people experience in different situations. As already argued in the previous chapter, if we follow Prentice et al. (1994) interpretation, we would predict participants in our intended category condition to feel more attached to the identity of the group rather than to the single members. In this circumstances we could therefore understand social identity principles to be operating. In the "group" condition instead members would be more attached to

other group members rather than to the general identity of the group. In this condition it is possible to understand why individualist/autonomous members show higher identification/bias correlations: they are the ones that even in a common bond situation are less attached to the others in the group and maybe more attached to the identity of the group itself.

Despite this unclear finding, another point about these results is that, as we already mentioned before, they actually showed that the Hinkle and Brown model is particularly verified in one specific condition, so the status and the groupness factors do have an effect on the model itself. Of course, the problem of replication remains open and the fact that we have not been able to replicate the results of the meta-analysis still has to be explained. Nevertheless, at least the status manipulation produced results in the expected direction. The main effect of status (stronger correlations in the superior condition) is not found in this study and we are only left with more homogeneous correlations in the higher status condition. On the other hand in the equal status condition the pattern is in line with Hinkle and Brown's predictions.

We can therefore at least conclude that one of the reasons why some studies (e.g. Brown et al. 1996) found non-supportive results for the Hinkle and Brown model is that they do not consider equal status relationships between ingroup and outgroup. Therefore, they do not allow individuals with a relational orientation to compare themselves with the outgroup because the comparison with a very different and inferior outgroup does not serve the self esteem enhancing purposes of ingroup identification.

Another way of reconciling the differences between the results of the meta-analysis and the follow-up study would be that of incorporating this later study in another meta-analysis. We would then be able to look at the impact of the outcome of the present

study on the results of the meta-analysis itself, to see if these are stable or not.

In conclusion, some aspects of the identification/bias association are still to be investigated. One line of research that we believe would be beneficial, concerns the concept of collectivist orientation. As our analysis revealed, collectivism is indeed a very complex variable (Triandis, 1995). The factor analyses we performed, and which benefit from the effects of a large sample size, revealed the presence of at least four different factors as components of collectivism. Having a collectivist orientation might mean any or all of the following: to be interested in maintaining agreement and harmony inside the group, to cooperate in activities including other members of the group, to believe in the group norms and to consider them very important, and finally to receive personal benefits from group outcomes. All of these are what the commonly used scale of collectivism measures (Triandis et al. 1988). What we would like to suggest at this point is that maybe the theoretical prediction of the Hinkle and Brown model would find stronger support if we were able to define which one _is the main aspect of collectivism_ that is relevant for the group process of identification. At the moment we actually feel that the collectivist orientation is defined and measured too broadly and that the advantages of having a very inclusive dimension are gained at the expense of stronger relationships between collectivism itself and the other variable included in the model and in our study.

However, if these results do not solve completely the controversy surrounding the predictions and the validity of the Hinkle and Brown model, they at least provide support for the general claim raised in this thesis: that social groups have important different characteristics that affect their social behaviour in ways that have not been considered yet.

As far as the Hinkle and Brown model is concerned, we still believe in its predictive capacities, and the results of the equal status/category condition confirm them. But besides that, we also believe that the initial idea of a group taxonomy is the one to be pursued. If collectivism and relational orientation did not completely succeed in explaining the difference in the identification-bias association, maybe some other variable is still able to do so. The logic behind the model is a very challenging one and in the next part of this thesis we will look in more detail at some other way of differentiating between kinds of groups.

Chapter 6

Functions of social identification

in different groups

1. Introduction

For theoretical and empirical reasons (see Chapter 3) we decided to investigate the differences that characterise social groups, and the implications of these differences. We have illustrated how, from a theoretical point of view, social identity theory has so far failed to consider the impact that, for instance, motivational differences can have on social groups, creating very marked psychological effects. In every definition of a social group that we might come across, there is more or less the tendency to ignore distinctions between kinds of groups. In particular, by referring to "a social group" in general, and therefore not differentiating between kinds of groups, SIT (like many other theories) has *de facto* assumed that every group would behave the same way, implying that every group is the same in terms of the underlying social psychological processes.

As already mentioned (and extensively illustrated in Chapters 4 and 5), Hinkle and Brown (1990, 1992) looked at possible differences between groups in their social orientations (collectivism/individualism and relational/autonomous). Positive support for their four-group taxonomy emerged from a meta-analytic review of a number of studies, which showed that groups whose members are more collectivist and relational

in their social orientations, show a stronger association between ingroup identification and ingroup bias (especially when the status of the two groups is equal and the groups are not social categories). These results were partially replicated in Chapter 5, thus, one of the predictions that SIT made about "a social group" seems to be valid only for certain kind of groups.

Deaux (1995, 1996) has also been interested in the study of group differences. Her research has, first of all, shown that people do perceive social groups as different from each other and are therefore able to create clusters of groups (or identities). Deaux then argued that SIT needs to understand better what underlies this classification. What is it that enables people to perceive certain groups as similar or different from other groups? She proposed that _people's personal experience of belonging to different groups was driving their perception of group diversity and that groups differ in the kinds of psychological needs they can answer, or the kinds of functions they can have for the people who identify with them._ In a second series of studies, Deaux (1996) considered various groups and measured their perceptions of the functions of social identification that a specific group can have. What emerged, though, is a picture that is only partially able to differentiate between social groups on the basis of their functions of identification (see Chapter 3). Similarly, Torres (1996) created clusters of social groups and associated them with specific functions of ingroup identification.

A comparison between the two sets of results (Deaux and Torres) is very difficult, partially because of differences in the methodology used by the two authors and partially because they looked at different groups with different functions of identification.

One of the goals of this study is to shed some light on the different identification functions of specific social groups.

In the present study we assume that self esteem is not the only function of ingroup identification, and that group members can give a sense to their ingroup identification without even using the concept of self esteem. We are not trying to say that self esteem should be ignored and that it is incorrect to consider its importance in social identification processes. But self esteem has been shown to have a quite complex role in social identification processes (Abrams & Hogg, 1998; Long & Spears, 1997, 1998, also see Chapter 3). Therefore it could be very difficult to assess the relative importance of other functions of identification, once self esteem motives are prompted to experimental participants, as happened in Deaux's (1996) study. What we want to explore instead are functions other than self esteem, whose meanings can perhaps elaborate the concept of identification once self esteem motivations assume lower importance in a group. So, first of all, we shall be looking at what are the possible motivations that ingroup members can have for identifying with a group. Once we have a list of functions that we can integrate with the ones provided by Deaux and Torres, we will use it to try to verify whether different groups are driven by different meanings of identification.

In addition, in this study we aim to use the classification of social groups on the basis of their motivations of identification to investigate which sort of association exists between functions of identification (specifically between groups characterised by different functions of identification) and intergroup attitudes or behaviours. If intergroup differentiation follows from the need for a positive self esteem, according to the psychological processes assumed by SIT, then groups that have other functions of identification would display a different level of identification-bias association, as well as potentially significant relationships with other intergroup attitudes (e.g. cooperation, liking, etc.).

So, to summarise, the purpose of this study is twofold: First, to replicate and clarify the results obtained by Deaux and Torres, trying to differentiate between social groups on the basis of their functions of social identification. Second we investigate the relationship between identification functions, ingroup identification and intergroup attitudes.

To achieve this goal we looked at four different kinds of groups and conducted parallel collections of data on similar measures. The groups used in the study are: <u>Psychology students</u> (from an English university), members of a <u>Trade Union</u>, <u>Football Supporters</u> and, again, university <u>Students</u> but from <u>Japanese</u> universities. Each group is taken from one of the clusters that both Deaux and Torres have suggested as being part of the classification people use for social groups. The group of Psychology students was considered because this represents a group that is probably the most frequently used in social psychological research and most of the information we have about intergroup relations is obtained by studying psychology students. It therefore makes sense to gather additional information about a group that we know well, so that these results could be easily compared with other research conducted with the same kind of group. In terms of the group classifications already proposed by Deaux and Torres, we know that the group of university peers is a very salient one, included in the Vocation/Avocation cluster or in the Affective Relationship cluster respectively according to the two authors' findings. The second group considered, that of Trade Unionists, was chosen as a good example of an occupational category, and because it seemed to belong to a different cluster from the other groups of this study. In Torres' classification, for instance, we find trade unionists in the Civic Relationship cluster. The third group, Football Supporters, was also examined because it represents well the class of sport groups. Here the choice we

faced was between sport groups formed by people who are actually engaged in a specific sport activity (e.g. a lacrosse team as in Deaux's study), and sport groups as people who are simply interested in the same sport, e.g. supporters. As an example of a sport group, football supporters would be found in the cluster Entertainment Relationship, again according to Torres' classification. Finally, Japanese psychology students have been added to the other samples in order to eventually provide a replication of the results obtained for the English students, but especially to test the possibility that cultural differences might affect the processes we were interested in studying in this research.

It is important at this point to make clear that the nature of the present study is exploratory. In each of the four groups different aspects of an intergroup relation have been measured. But in every study we aimed at obtaining as much information as possible from the group members concerning a relevant outgroup. Therefore, measures that were relevant for one ingroup at times seemed inappropriate for another group. As a result, the four group investigations share some similar measures, but they also differ to a certain extent. The main reason of this exploratory approach is that using only the empirical evidence we possessed at the time, it turned out to be impossible to formulate specific hypothesis concerning the role of the functions of identification in the groups we decided to study. Rather than clear predictions we had a series of questions that we wanted to answer before conducting more experimental studies. The issues we wanted to clarify were as follow:

- Will the four groups display a similar factorial structure of a scale designed to measure functions of identification? Can we expect participants belonging to different groups to share a similar concept of what the different meanings of

identification could be?

- Will members of different groups display different scores on measures of functions of identification?

- And finally, will members of groups with different functions of identification display different levels of association between ingroup identification and measures of intergroup attitudes?

Data from the four samples were collected independently using questionnaires that, as we said, comprised different measures. In the following sections the four studies will be described separately, indicating from time to time which are the similarities between the four studies. In every section we will describe as much as possible of the original investigation and of the measures filled in by participants. Only later, in a general results section, will we compare the findings of the four studies on the overlapping measures and look for an answer to our questions.

Pilot study

In order to construct a measure of functions of identification, we conducted a pilot study where ten members of each of six different social groups (Family members, Football Supporters, Alpine Climbers, Catholics, Muslims and Trade Unionists) were interviewed individually about the possible meanings of identification in their groups. This qualitative investigation of the motivations of identification also included a small questionnaire that the respondents filled in after the interview. The rationale behind this qualitative analysis was that we wanted to have some direct and in-depth contact with members of some of the social groups we were planning to study in the present research. The interviews, as expected, provided very useful information for the construction of a

scale of functions of identification, as well as precious support for the rationale of the study itself. After having transcribed the content of the 60 interviews, we identified the words that defined functions of identification, and we did a frequency count of these terms and expressions. This simple frequency observation already showed clear differences between the groups. For instance in the Family group expressions like "feel like belonging" and "get a lot of support" had the highest frequency; while in the Trade Unionist group the most reported motives for identification were expressed with words like "we get listened to", "we are stronger" , "we feel secure". The concepts which emerged from the interviews were then integrated with some of the items from Deaux's scale (1996), Torres' scale and other possible motivations of social identification derived from the literature (e.g. Abrams & Hogg, 1988; Forsyth, 1991). The scale obtained from this phase of the study was then tested on a group of school children (N = 86) before reaching its final format. The resulting version of the scale for the measurement of functions of ingroup identification comprised 42 items investigating the importance of functions like social learning, cooperation and helping needs, materialistic self interests, etc. etc. An example of the kind of items included in the scale is "Others in this group do not help me to feel good about myself" or "I can help others by staying in this group" (See appendix for the full questionnaire).

2. Study 1 - Psychology students

2.1 Participants and procedure

Participants in this study were 125 psychology students from an English university; 32 males and 93 females, aged between 17 and 21 years. They were all first and second

year students and they agreed to participate in the study to fulfil their course

requirements. All the measures of the study were included in a questionnaire that

students filled in at the end of a lecture; they were then debriefed a week later via a

written letter.

2.2 The questionnaire

The questionnaire was first introduced to the participants as part of a research project

aimed at studying student life at the university and the importance of the group of

university students in their everyday experience. The first measure included in the

questionnaire was a scale for the measurement of functions of ingroup identification

constructed on the basis of the results of a pilot study. In the same scale, six items

measuring the sense of identification with the ingroup were added, which had been

adapted from Brown et al.'s (1986) identification scale.

In order to understand how central the ingroup elicited in the identification scale was to

the participants' self concept, the word "yourself" was placed at the centre of seven

concentric circles. Participants had to put a cross on one of the seven levels that

represented the increasing centrality of the group to the definition of the self concept.

The reason for including this measure is that, in previous studies, Torres (1996) had

found that the two concepts of ingroup identification and group centrality are actually

distinct and have different associations with measures of intergroup attitudes. Torres

had proposed that people report similar levels of identification to different groups, but

these might have different levels of centrality (or importance) in defining their selves.

For Torres, while identification with a group indicated the extent to which one feels part

of a group, centrality referred to the importance of such identity in one's self definition.

In the following four pages participants had to answer a measure of linguistic intergroup

bias[1] (Maass, Salvi, Arcuri & Semin, 1989; Maass & Arcuri, 1992). This measure was added to the questionnaire to check whether the display of ingroup bias is affected by the use of implicit rather than explicit measures.

A measure of ingroup and outgroup homogeneity followed. Participants had to put two crosses on a series of 7 cm long segments representing different attributes. The new segment, created by the respondents' crosses, indicated how much members of the ingroup (and in the next page, members of the outgroup) varied in the display of the dimension described at the two extremes by a pair of adjectives of inverse polarity (e.g. patient, not patient). Each group was rated on 6 dimensions, 3 of which were assumed to be stereotypical of the ingroup, while the remaining were assumed to be stereotypical of the outgroup[2].

The last two measures of the questionnaire were a six item scale that measured the participants' affective disposition toward the outgroup, asking things like " How much would you like to cooperate with accountancy students in a joint program ?" or "How much would you be irritated to work with accountancy students ?", and a semantic differential comprising 15 pairs of adjectives on which participants had to judge a typical member of the ingroup and a typical member of the outgroup.

All the items were measured on 7 point scales, unless differently specified, and in all the

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[1] In every page a _vignette_ was picturing either a member of the ingroup or a member of an outgroup performing either a positive or negative behaviour (e.g. breaking the window of a car, looking at a school report card, comforting a friend). Four different combinations of vignettes (varying the association between ingroup/outgroup member and positive/negative behaviour) were created in order to control for presentation effects. The relative positivity and negativity of the behaviours pictured was tested in a pre test phase of the research. Under every vignette, four statement described the picture itself using four different levels of language abstraction (Maass et al. 1989, Maass & Arcuri, 1992). Participants had to rate, for every vignette, how well every statement was describing what was happening in the vignette.

[2] The stereotypicality of these traits was only assumed and not directly tested.

scales the number of items with positive and negative wording was balanced.

2.3 Results

2.3.1 Functions of ingroup identification

The 42 items measuring functions of ingroup identification were factor analysed with a maximum likelihood extraction method and an orthogonal rotation (varimax). The extraction of five factors was imposed on the solution after a principal component analysis revealed a higher number of factors some of which however were not meaningful; also the results of a scree-test revealed a strong elbow after the fifth factor extracted. The five factors emerging are described in Table 6.1. The first factor loaded items that were mainly related to feelings of closeness, unity and collectivism experienced by the members of the group. It also expressed an altruistic function and a materialistic one, so we decided to call this factor "unity-help-rewards". The reliability coefficient of the factor is alpha = .89, and the mean of the composite factorial score is M = 4.16 s.d. = .93.

On factor two loaded items that expressed many of the functions included in the scale but with a negative wording. It can therefore be interpreted as a factor representing a detachment from the group, a denial of many of its functions. The reliability of the factor is alpha = .84 and the mean of the factor scores is M = 3.39 s.d = 1.11, definitely quite low.

The third factor loaded only two items, but in a very strong and consistent manner. Its meaning is clearly that of "ingroup comparison"; and high scores on this factor mean that group members compare to other people similar to them (belonging to the same group) as a result of their identification. The reliability coefficient was alpha = .84 and the mean factorial score M = 4.00, s.d. = 1.4

Table 6.1 Factorial structure (item loadings) of the scale of functions of identification in the Psychology students sample; in bold are the items loading in the same factors in the four samples

CONTENT	Unity Help Rewards	Distance	Ing. Comparison	Self, Social Knowledge	Self Categorization, Relational
30. In this group we do what we can to help each other	.78025				
32. There is a sense of community and unity in this group	.74300				
35. Some of the benefits I have come from the fact that I am a member of this group	.73055				
38. As a result of belonging to this group I feel more self confident	.67272				
34. Being a member of this group gives me opportunity to do something for its members	.67255				
44. I get so many rewards in this group that it is worth staying	.60031				
14. I can help others by staying in this group	.59783				
5. When I am with others of this group I always have fun	.58399				
27. It is by comparing my opinions with those ......that I understand things better	.57632				
15. My understanding of people has improved being a member of this group	.54783				
16. What I achieve is not only the result of my effort but it also depends on the .	.47634				
25. As a member of this group I don't feel useful		.70134			
22. I find it difficult to express my feelings to others in this group		.63210			
42. I cannot say what I really think to others in this group		.59987			
48. I do not enjoy myself much with people in this group		.59912			
21. Working with others in this group is more trouble than it is worth		.57696			

Table 6.1 (continued) **Factorial structure (item loadings) of the scale of functions of identification in the Psychology students sample; in bold are the items loading in the same factors in the four samples**

18. I would be better off materially if I didn't belong to this group	.54773		
41. In this group we do not work together very well	.49842		
4. Others in this group do not help me to feel good about myself	.48464		
20. Some others in this group are worse than I am		-.89148	
7. I am better than some others in this group		-.74500	
6. Other members of this group have not helped me to understand myself better			.62587
11. This group does not give me a sense of belonging			.58649
36. I have not gained much self insight from the others in this group			58372
12. I seldom validate my opinion by comparing them with those of others in this group			.50686
23. I do not have a clear idea of what the typical attributes of a member of this group are			.49278
3. Being in this group means there are specific expectations as to one should behave			
13. I am often aware of how similar I am to most people in this group and of how different we are....			
39. I see others in this group mainly as members of the same group rather than as separate individuals			
8. I often compare this group with other groups			
1. If I want to evaluate this group I compare it with how it was doing in the past			
24. The only way for us to achieve something is by being a member of this group			

Note: In the rightmost column the following values appear against the respective items: 3. → .58924; 13. → .57070; 39. → .44567; 8. → .42651; 1. → .42487; 24. → .41752

Factor four is interpretable as a function of "self and social knowledge"[3]. The importance of the group is that of providing the individual with a social contact that helps him to know him (or her) self and the others better. The reliability coefficient was alpha = .70 and the mean factor score was M = 4.2, s.d. = .95.

Finally the fifth factor brings together the items expressing the function of "self categorisation and the relational orientation". The group is therefore seen as a way of obtaining the distinctiveness that the individual requires, by feeling similar to the ingroup members and different from outgroup members. In this sense, the relational orientation is an aspect of the self categorisation function in as much as people need to compare with other groups in order to assess their distinctiveness. The reliability of this factor was alpha = .68 and its mean factor score was M = 3.4, s.d. 95.

Despite the apparent similarity of the average scores, these differ significantly ($F(4,119)$ = 24.605, p <.001). The most interesting function of identification in this group (and also the one with highest average score) is that of "self and social knowledge". Thus the tendency of student group members is to use the group and its members to improve knowledge of themselves and to test their social skills. Not surprisingly, one of the most frequent reasons reported by students when interviewed for admission by psychology faculties is that they expect to learn more about their own and others' behaviour.

2.3.2 Ingroup identification

After having factor analysed the six items measuring ingroup identification, we decided to use only the three with a positive wording when computing a general score of

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[3] The polarity of the scores has been inverted so that a high score means high endorsement of the function of self and social knowledge.

identification because the factor analysis revealed two factors in the scale measuring ingroup identification, a positive identification factor and a negative identification one. Compared to the overall six items scale (alpha = .41), the positive factor showed better reliability (alpha = . 76) and its factorial score was therefore preferred as a general measure of identification. The average score of ingroup identification displayed by participants was M = 4.5, s.d. = 1.8, which can be considered as a moderate level of group identification.

The mean score of centrality displayed by participants toward the group of psychology students was M = 4.04, s.d. = 1.54, thus moderate and corresponding almost exactly to the mid-point of the scale. The concept of centrality in this study correlated if weakly with ingroup identification (r = .35, p< .001), thus failing to replicate Torres' (1996) findings of an orthogonal relationship between the two constructs.

2.3.3. Measures of intergroup attitudes

Group Homogeneity

Six initial scores of outgroup homogeneity were computed by subtracting, for every corresponding adjective, the length of the segment assigned to accountancy students from the length of the segment assigned to the ingroup, psychology students. In this way, a positive score indicates outgroup homogeneity (the ingroup is assigned a longer segment which corresponds to a perceived greater variability of the ingroup members on that trait), while a negative score indicates greater ingroup homogeneity. Thus scores were averaged over participants.

Of these six scores, three were positive (and two of them significantly different from zero; see Table 6.2) while the other three were negative (but none is significantly

different from zero). The adjectives corresponding to the scores indicating outgroup homogeneity (positive scores), are more stereotypical of the outgroup (attentive to details, able to organize things, high level of numeracy, can be considered traits more frequently associated with accountants than with psychologists[4]).

Table 6.2 Scores of group homogeneity

Trait	Mean	S.D.	t-value (diff. 0)	p level
attentive to details	3.02	14.08	2.337	.021
able to organise things	2.22	13.45	1.799	.075
patient	- 1.38	15.19	-.988	.325
high level of numeracy	7.54	17.68	4.650	.001
perceptive	- 2.66	15.65	- 1.850	.067
good in communic. skills	-. 74	14.04	- .570	.570

This means that participants tend to consider the outgroup as more homogeneous than the ingroup on traits more stereotypical of the outgroup (in line with what was predicted by Simon, 1992). When the traits seem more stereotypical of the ingroup (patient, perceptive and good in communication skills), participants showed either no difference in the perception of the homogeneity of ingroup and outgroup or a weak tendency towards ingroup homogeneity. Therefore, two separate combined scores are computed, one which is the average difference on the ratings on traits stereotypical of the outgroup and one which is the average difference on the ratings on traits stereotypical of the ingroup. The mean score of the first measure is M = 4.14, s.d. = 10.01, while for the

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[4] Even though we don't have any test of this association.

second measure M = - 1.50, s.d.= 10.6[5].

Affective measures

A principal component analysis of the six items measuring the affective disposition of participants toward outgroup members showed the existence of two factors: one loading all the items but item 4 ("I would be irritated to work with accountancy students") and the second factor loading only item 4. It seemed therefore legitimate to compute a general score of affective disposition omitting only item 4 (therefore using the first factor

score). The resulting measure had a mean score of M = 4.12, s.d. = 1.05 and a reliability of alpha = .82. This score indicates that, in general, psychology students have a neutral affective disposition toward accountancy students.

Ingroup Bias

From the 15 adjectives comprising the semantic differential, 15 scores were first obtained by subtracting the outgroup evaluation from the ingroup evaluation. A positive score would then indicate the display of ingroup favouritism while a negative score would indicate outgroup favouritism. A factor analysis on the difference scores (principal axis factoring, varimax rotation) suggested the existence of two separate factors in the scale. Looking at the content of the adjectives defining the dimensions of the evaluation (see Table 6.3 for factor loadings and content of the items), it was possible to define the two factors as "pleasant" (alpha = .73) and "self control" (alpha =

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[5] Means are expressed in millimetres of difference between the two segments, with a possible range of +/- 70.

.50).

Table 6.3 Factor loadings of the measures of ingroup bias

Trait	Socially desirable	Desirable at work
Pleasant	.67198	
Warm	.61245	
Unselfish	.57100	
Desirable	.52034	
Sincere	.50398	.32959
Friendly	.49590	
In control of self		.77313
Polite		.42064
Intelligent		.33540
Hard working		.33145
High reputation		.30844

We therefore computed two different scores of ingroup bias; the first, averaging the ratings on the adjectives describing "pleasant" aspects, had a mean score of M = 2.77, s.d. = 3.76[6] (significantly different from zero, t(125)= 8.282, p<.001), while the second, averaging the ratings on the adjectives describing "self control", had a mean score of M = -.36, s.d. 3.53 (non significantly different from zero, t(124)= -1.137, p<.259)[7]. Thus, participants believed that psychology students are significantly more pleasant than accountancy students, while they judged the two groups equally in control of self related attributes. The evaluation of the ingroup is enhanced when the judgement is based on traits related to pleasantness rather than on levels of self control.

Path analysis

To investigate in detail the relationships between the measures described so far:

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[6] The possible range of this score is +/- 36
[7] The possible range of this score is +/- 30

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functions of identification (represented by the five factor scores), ingroup identification

(using the factor score of positive identification) and measures of intergroup attitudes

(linguistic intergroup bias, affective disposition, outgroup homogeneity on traits

stereotypical of the ingroup and of the outgroup, and ingroup bias on the dimensions of

social desirability and work related desirability), we conducted a path analysis using

Table 6.4. Correlation matrix between the variables included in the path analysis (English sample)
* significant at p< .05
** significant at p< .001

	Ident	Bias (pleas.)	Bias (s. control)	Out Hom	Out Hom	Fact. 1	Fact. 2	Fact.3	Fact. 4	Fact. 5
Ident.	1.00									
Bias (pleas.)	.26*	1.00								
Bias (s. contr)	-.18*	-.40**	1.00							
Out Hom	.31**	.18*	-.24**	1.00						
Out Hom	-.18*	.09	-.09	-.46**	1.00					
Fact. 1	.78**	.11	-.18*	.25**	-.21*	1.00				
Fact. 2	-.33**	-.11	.17	-.20*	-.06	-.28*	1.00			
Fact.3	-.13	-.05	.16	-.05	-.05	-.07	.36**	1.00		
Fact. 4	.25**	.00	.15	.12	.00	.28**	-.40*	-.01	1.00	
Fact. 5	.35**	.18*	-.14	.07	.05	.48**	.05	.18*	.00	1.00

multiple regression analyses. The results are illustrated in figure 6.1 where the arrows

represent significant beta coefficients of the regression equations. The correlation matrix

of the variables included in the analysis is shown in Table 6.4.

As we can see, of the five factors representing functions of ingroup identification, three

of them: unity, self and social knowledge, and self categorisation/relational had a

significant regression path to the identification measure (the corresponding Beta

coefficients are: .43, p <.001; .25, p<.001; and .14, p<.05). These functions of

identification are therefore to be considered the ones driving the identification process in this sample of university students.

For the measure of linguistic intergroup bias, the affective measure and the first measure of outgroup homogeneity (adjectives stereotypical of the outgroup), the picture is the same, neither ingroup identification nor its functions can predict the participants' linguistic intergroup bias score or their perception of homogeneity of the outgroup or affective disposition.

But when the traits used for evaluation are stereotypical of the ingroup, we see that the level of outgroup homogeneity is significantly predicted by ingroup identification (Beta = -.27, p<.005). The negative value of the Beta coefficient indicates that the more the participants are identified with the ingroup, the stronger the tendency to perceive the ingroup as more homogeneous than the outgroup on traits that are stereotypical of the ingroup.

Figure 6.1. Results of the path analysis in the English student sample
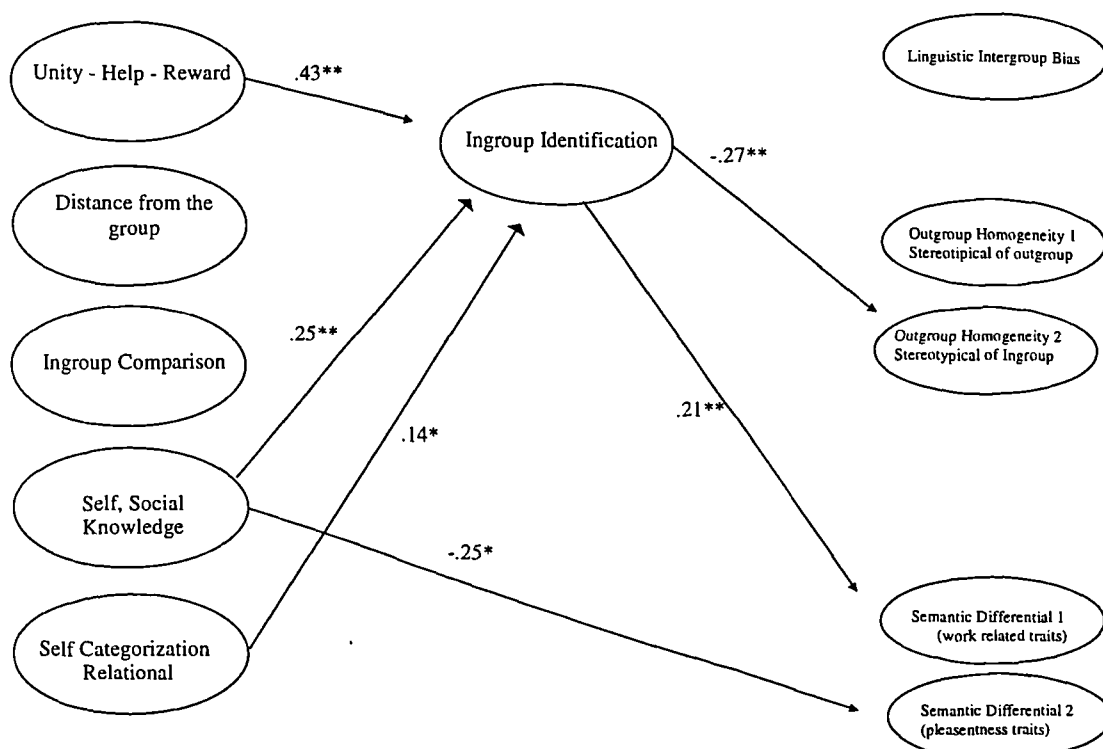
Of the two scores of ingroup favouritism obtained from the semantic differential, the first one is significantly predicted by the level of identification (β = .21, p<.001). Consistent with SIT predictions, the more participants are identified with the ingroup the more they differentiate in favour of the ingroup. The second measure of ingroup favouritism derived from the semantic differential instead is not predicted by social identification but rather by the function "self and social learning" (β = -.25, p<.02). So, the more important is the social learning aspect in the meaning of identification of the participants, the less they tend to favour the ingroup when rating it on adjectives expressing desirable traits related to work. Possible interpretations of this result should take into account the different content of the adjectives used to compute these measures.

2.4 Discussion

What emerged from this study is, first of all, a description of the meanings that identification with the group of university students can have for its members. Different conclusions can be drawn looking either at the means of the factorial scores or at the regression coefficients that the factorial scores have on ingroup identification. The first approach (the means of the factorial scores) indicates how much participants think a certain need for identification could be answered by that group, potentially. The second (the regression coefficient of the functions on ingroup identification) shows how important in practice that specific function is in predicting ingroup identification, and, therefore, how much a certain function is actually used by the participants as a motivator of ingroup identification. We therefore look at the regression paths to see what are the determinants or motivations of ingroup identification in a specific group. In the case of this sample of university students, we found that ingroup identification

serves a function of unity, it gives a sense of belonging to its members who may have a special opportunity, as students, to do things with other people (e.g. like to attend lectures or to study together; usually living in campus accommodations where collective life is an everyday experience). Identification also gives group members the opportunity to help other people, by talking about their problems or studying together; and it also gives them material rewards in terms of the status attached to higher education and of the positive effect that a degree will have in their future careers. These aspects though can be considered quite common in groups and do not add much to our understanding of the meanings of identification. Therefore, a more interesting aspect of social identification in this group is that by being psychology students, participants feel like they learn more about themselves and others. This function is only the second best predictor of ingroup identification, but its content is very interesting. It almost seems that by self categorising themselves as psychology university students, they acquire a balanced definition of themselves. This probably depends on the specific content of the discipline they study and therefore members of this group find the social experience provided by the group as particularly important. Belonging to this group has almost a didactic value and consequently an important role in the construction of the social self. So, these functions describe what it means for its members to be part of this group.

Participants then showed a moderate level of identification with the ingroup. The average identification score is in fact around the mid-point of the scale. One possible question we might ask ourselves is why a group that we would think of as salient in the participants' reality for most of each day, is considered only a moderate source of identification.

Results also showed that, when using explicit measures of ingroup favouritism,

members of this group seem to be affected by the psychological processes predicted by social identity theory and display, for instance, outgroup homogeneity on traits stereotypical of the outgroup (see Simon, 1992). Participants therefore show a good degree of self stereotyping, which could be a way of ensuring some kind of group distinctiveness and relative superiority in most intergroup situations. It is also interesting that the level of ingroup homogeneity is significantly predicted by ingroup identification; the more participants identify with the ingroup, they more they tend to self stereotype. Together with the fact that one of the two measures of ingroup favouritism is predicted by ingroup identification, these two results generally support the predictions of SIT.

A very general conclusion we can draw about this first study is that, in a group where these motivations of ingroup identification give a meaning to the social identity of its members, it is still possible to predict ingroup favouritism and ingroup homogeneity from a measure of ingroup identification, but the level of association between these variables is only moderate.

3. Study 2 - Football supporters

3.1 Participants and procedure

Participants in this study were 127 football supporters of a premier league team in England. Participants were approached either outside or inside the stadium in the hours before a home match and asked to fill in a questionnaire containing all the relevant measures. The questionnaire was introduced as part of a study interested in investigating "people's experience as a football supporter and the importance of football in their life". One hundred and one males and 16 females agreed to fill in the

questionnaire (10 failed to fill in the demographic details section), their age ranged from 14 to 55 years (Mean = 33 years).

3.2 The questionnaire

All the measures relevant to the study were included in a questionnaire. These were all similar to the corresponding measures used in Study 1, except that the wording of the items was adapted to be meaningful for football supporters. The functions of ingroup identification and ingroup identification itself were measured with the 42 plus 6 items scale used in Study 1. Then followed the same measure of centrality of the ingroup described in Study 1. The affective disposition of football supporters toward the outgroup of supporters of a different club was measured with the same six item scale of Study 1. And the adjectives comprising the semantic differential were the same of Study 1; here, though, the stimulus concepts to evaluate were "a typical home team supporter" and "a typical rival team supporter". Data from the semantic differential were available only for those participants (N = 71) who filled in the questionnaire outside the stadium ground itself. We were unable to obtain permission from the stadium manager to administer a measure of ingroup favouritism (that evokes a direct comparison with a rival outgroup) inside the stadium, for security concerns.

3.3 Results

3.3.1 Functions of identification

To analyse the content of the scale for the measurement of functions of identification, we conducted a factor analysis on the 42 items comprised in the scale. The best

solution[8] was obtained with a maximum likelihood extraction method and a varimax

rotation. The five factor solution that emerged partially overlaps with the results of

study 1. From Table 6.5 where a description of the items loading each factor is

provided, we can see that factor 1 can be interpreted as expressing a function of social

help, personal material rewards and in general a feeling of unity (alpha = .83, M = 4.34,

s.d. = 1.36). Participants' average factor score is just above the midpoint of the scale,

indicating a moderate endorsement of this function of identification. The second factor,

has high loading for the items with a negative wording, altogether representing a

"detachment" from the ingroup (alpha = .73, M = 2.30, s.d. = 1.19). Factor three

represents a function of "ingroup comparison" (alpha = .60, M = 4.41, s.d. = 1.85),

meaning that other group members are significant terms of comparison and self

evaluation. On factor four loaded items that represent the "collectivist orientation"[9] (M

= 4.48, s.d. = 1.31). Factor 5 mainly expresses the function of "relational" orientation

(M = 4.34, s.d. = 1.43). According to this function ingroup members evaluate the group

by comparing it with other significant outgroups rather than just looking at their own

abstract standard or previous performance. In Table 6.5, in bold we can see those items

that overlap with the factorial solution of the previous study. The results of a one way

analysis of variance, also indicate a significant difference between these five scores, $F(4,$

$97) = 47.825$, $p<.001$, but post hoc analysis reveals that the effect is caused by all the

pairwise differences that include factor 2. None of the other pairwise comparisons

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[8] There is no way of assessing the goodness of fit of an exploratory factor analysis. What we mean here with the best solution, is the one that offers a factorial structure that is most stable across different methods and rotations, and that has a clear cut set of items loading in one factor at a time.

[9] Here as well, the original polarity of the scores has been inverted so that a high score represents a collectivist orientation.

revealed significant differences, and it is therefore impossible to individuate the one factor with the highest mean value.

Table 6.5 Factorial structure of the scale of functions of identification in the Football supporters sample; in bold are reported the items loading in the same factor across the four groups.
Note: The club name has been deleted to preserve its anonymity

Content	Unity Help Rewards	Ditance	Ing. Comparison	Self, Social Knowledge	Self Categorisation, Relational
14. I can help others by staying in this group	.70406				
15. My understanding of people has improved being a xxxx supporter	_.69693_				
35. Some of the benefits I have come from the fact that I am a xxxx supporter	.63016				
34. Being a xxxx supporter gives me a chance to do something for this group	.56528				
36. I have not gained much self insight into myself from other Xxxx supporters	-.53928				
27. It is by comparing my opinions with those of other Xxxx supporters that I understand things better	.51659				
38. As a result of being a Xxxx supporter, I feel more self confident	.49593				
13. I am often aware of how similar I am to most other Xxxx supporters and of how different we are from ...	.49568				
30. In this group we do what we can to help each other	.44821				
16. What I achieve is not only the result of my efforts but it also depends on the contribution of others in the group	.44154				
5. When I am with other Xxxx supporters I always have fun	.44005				
44. I get so many rewards as a Xxxx supporter that it is worth staying in this group	.43374				
17. When I am in this group I don't often think of what a typical Xxxx supporter would o in this situation	-.36305				
11. This group does not give me a sense of belonging	-.32797				
22. I find it difficult to express my feelings to other Xxxx supporters		.67082			
25. As a Xxxx supporter I don't feel useful	·	.65274			
48. I do not enjoy myself much in this group		.58720			

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Table 6.5 (continued) Factorial structure of the scale of functions of identification in the Football supporters sample; in bold are reported the items loading in the same factor across the four groups.
Note: The club name has been deleted to preserve its anonymity

Content	Unity Help Rewards	Distance	Ing. Comparison	Self, Social Knowledge	Self Categorisation Relational
32. There is a sense of community and unity in this group		-.51692			
41. As Xxxx supporters we don't do things together very well		.46973			
21. Doing things together with other Xxxx supporters is more trouble than it is worth		.46000			
46. Other Xxxx supporters have not made it easier for me to get along with people		.42748			
29. What I achieve by staying in this group of Xxxx football supporters is actually less than what I could do on my		.37463			
7. I am better than some other Xxxx supporters			.59108		
20. Some others in this group are worse than I am			.52489		
28. I don't think it is necessary to do as other Xxxx supporters prefer				.68385	
9. The ideas of other Xxxx supporters do not influence me much				.50842	
23. I do not have a clear idea of what the typical attributes of a Xxxx supporter are				.46653	
12. I seldom check out my opinions by comparing them with those of other Xxxx supporters				.46467	
47. I am not doing better compared to other Xxxx supporters				.36318	
8. I often compare Xxxx supporters as a group with other groups of supporters					.60885
39. I see other Xxxx supporters mainly as members of the same group rather than as separate individuals					.47084
40. it is not possible to assess this group's achievements without comparing them with those of other groups					.31992

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3.3.2 Ingroup identification

The three items measuring ingroup identification with a positive wording were used to compute a general score of identification. Although the factor loadings of the items with a positive wording seems to be a just slightly more reliable measure than the other ones (alpha = .56 for the six item scale while alpha = . 62 for the positive identification sub-scale), using the same measure of general ingroup identification as in Study 1 permitted easier comparisons of identification levels across samples. Football supporters showed a quite high level of ingroup identification (M = 5.6, s.d. = 1.3). This is significantly higher than the ingroup identification level reported by psychology students (t(116) = 6.766, p< .001) .

As far as the centrality measure is concerned, the average score reported by participants is M = 5.16, s.d.= 1.84, which correlates only weakly (r = .34, p<.001) with the measure of ingroup identification itself.

3.3.3 Measures of intergroup attitude

Ingroup bias

From the 15 adjectives of the semantic differential, 15 scores of ingroup favouritism were initially computed subtracting the outgroup evaluation from the ingroup evaluation, so that a positive score represented favouritism for the ingroup and a negative score represented favouritism for the outgroup. These 15 initial scores were then averaged to form a general score of ingroup favouritism that showed a mean of M = 1.9, s.d. = 1.86 (alpha = .92) on a possible range of -/+ 6 (t(51) = 7.384 , p<.001). So respondents showed a marked preference for their own group, almost 2 points of difference on average on a 7 point scale.

Affective disposition

The affective disposition of football supporters toward the outgroup of supporters of

another team is summarised in the general score obtained averaging five of the six items

comprising the scale. One of the items was omitted from this general score because a

factor analysis showed it as loading in a different factor from all the other items and also

because it lowered significantly the reliability coefficient of the scale. The mean score

reported by participants is $M = 2.24$, s.d. $= 1.45$, indicating a quite negative affective

disposition toward members of the outgroup. This variable was also shown to be

moderately correlated with the measure of ingroup bias, $r = -.57$.

3.3.4 Path analysis

So far we have seen that football supporters are strongly identified with their group and

that they show a marked preference for it. But in order to understand whether functions

of identification have a part in explaining these two variables, we examined the

Table 6.6: Correlation matrix between the variables included in the path analysis (Football supporters sample)
*   significant at p<.05
**   significant at p<. 01

	Ident.	Bias	Affect	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
Ident.	1.00							
Bias	.28*	1.00						
Affect	-.16	-.58**	1.00					
Factor 1	.48**	.47**	-.43*	1.00				
Factor 2	-.33**	.01	-.05	-.12	1.00			
Factor 3	.31**	.17	-.28*	.12	-.03	1.00		
Factor 4	-.03	-.44**	.38**	-.19	.22*	-.04	1.00	
Factor 5	.31**	.07	-.07	.30**	-.10	.15	-.07	1.00

regression paths linking the variables, rather than only concentrating on their means. In Figure 6.2 are shown the results of the path analysis on the variables mentioned so far while in Table 6.6 we show the correlation matrix of all the variables included in the analysis.

Three functions are significant predictors of ingroup identification: "unity-help-rewards" (β =. 41, p<.001); detachment (β = -.30, p<.001); and ingroup comparison (β = .28, p<.001). Despite the fact that it has the lowest of the three regression coefficients, still, we think that the ingroup comparison function is the more interesting of the functions of identification endorsed by this group. While it is not so surprising that ingroup identification in this group serves needs of unity and belonging, it is instead quite interesting to find that members of this group consider it important because it gives them the opportunity to compare themselves with very similar people and therefore to feel at ease.

Ingroup bias is significantly predicted by ingroup identification, as predicted by SIT (β

Figure 6.2 Results of the path analysis in the Football supporter sample
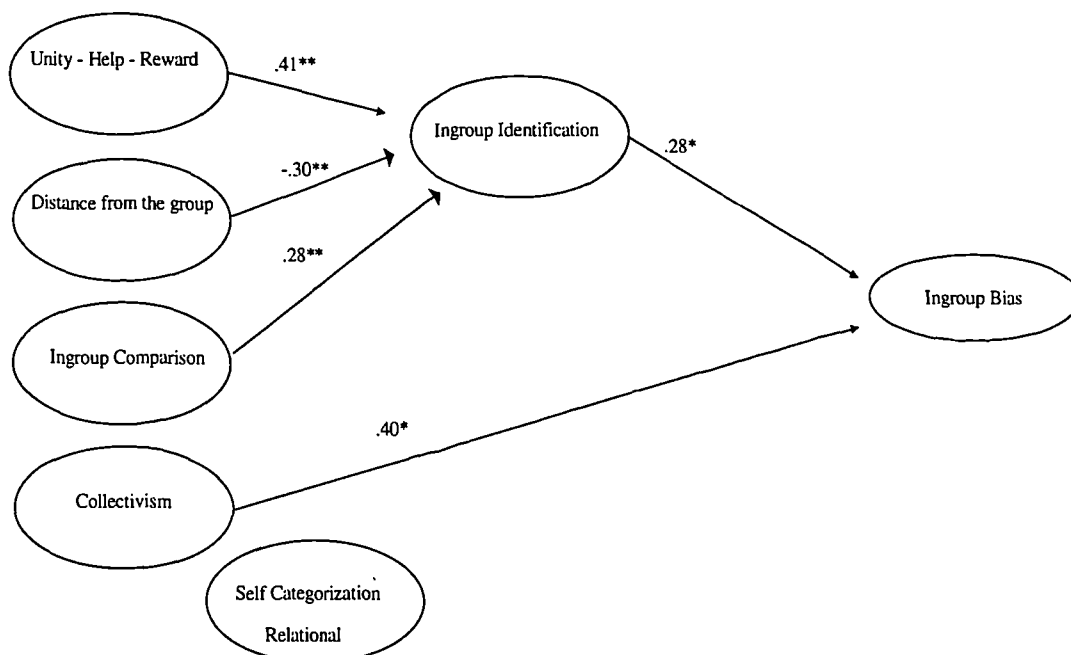
= .28, p<.05) but even more strongly, by factor four, which is a function that represents

the collectivist orientation (β = .40, p<.01).

3.4 Discussion

The first thing worth noticing about the analysis of this particular social group is the

strong sense of ingroup identification that characterises its ingroup members. To anyone

who has actually experienced the emotions associated with a live football match, this is

not difficult to understand. The presence of thousands of other people who feel the same

excitement; the fact that most people who do not belong to this group have a rather

negative impression of it; and also the fact that it is good fun, are things that all of the

people interviewed reported as possible explanations. But what is probably common to

all these accounts, is the highly emotional side of this experience. Being a football

supporter is something that involves individuals in a very passionate way.

As far as our measure of functions of identification is concerned, the very strong

identification with the ingroup that is shown in this group of football supporters is

motivated by the sense of unity that ingroup members experience and by the rewards

that they gain from the group. It is easy to understand what sort of feeling of belonging

football supporters experience. They usually wear the colour of their team, they know

the songs they are going to sing and most activities in the stadium experience are

ritualised. Being part of this atmosphere clearly creates a sense of unity between group

members that motivates their identification. But it is probably more difficult to

understand what sort of rewards football supporters can obtain from this group.

Comparing this result with the content of the interviews conducted with representative

members of this group, it is clear that the rewards they talk about are not materialistic.

To go to the stadium is expensive and it is something that people sometimes have

reported as having to hide from fellow workers because it is unorthodox in certain working environments. It seems plausible therefore to interpret these rewards as psychological rewards rather than material ones. There might be a sense of fulfilment and of being proud of one's own group. Whether we can stretch this and see the possibility of a self esteem function of identification in this group, is not too clear. The other functions of identification displayed by this group are a sense of closeness to the group, that can be included in the previous explanation, and the possibility to compare with fellow ingroup members – in particular about the loyalty to the group. One supporter can feel better than another in terms of the numbers of matches he goes to, his participation in and excitement for the games, etc.

Despite the importance of the consequent sense of identification in predicting ingroup favouritism, the size of the association between identification and bias, once more, is only moderate. What seems even more important than social identification in determining the level of ingroup favouritism (which is, as a matter of fact, very strong) is the collectivist orientation of ingroup members. Why this factor and its effects are not mediated by social identification is nevertheless not very clear at all.

Another interesting result from this study is the association between ingroup bias and the affective disposition toward outgroup members. What emerges here is a more negative feeling toward the outgroup associated with the display of ingroup favouritism. The difference in evaluation between ingroup and outgroup is not only the result of a more positive evaluation of the ingroup, but seems to involve a more diffuse negative feeling toward the outgroup. If we look at Table 6.7 we can see how all but one of the

evaluations of the ingroup are in the positive side of the scale[10] (above 4), while the evaluations of the outgroup are in the negative side of the scale (below 4). Unfortunately, given the

Table 6.7 Ingroup and outgroup ratings on adjectives of the semantic differential, used to compute the measure of ingroup bias

Trait	Ingroup		Outgroup	
	Mean	s.d	M	s.d
Strong	5.54	1.63	2.48	1.64
Hard working	5.21	1.71	2.72	1.69
Active	4.39	2.21	3.11	2.03
Intelligent	5.10	1.62	2.68	1.84
Unselfish	4.16*	1.83	2.92	1.90
Pleasant	4.69	1.88	2.82	1.71
Sincere	5.22	1.66	2.67	1.69
Friendly	4.94	1.92	3.00	1.91
Warm	5.22	1.66	2.68	1.68
Polite	4.40	1.76	3.33	1.88
Honest	4.87	1.64	2.93	1.66
Desirable	4.39	1.85	2.62	1.69
In control	3.98*	1.82	3.18	1.95
High reputation	4.75	1.84	3.12	1.98
happy	5.75	1.46	2.82	1.81

correlational nature of this study, it is impossible to establish the causality of the relationship between these two variables. It is plausible to think that the negative feelings toward the outgroup are already existing, and that therefore they are responsible for the ingroup bias displayed. But it could also be the case that it is the favouritism for the own group which generates a feeling of hostility toward the outgroup, in an attempt

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[10] All the values are significantly different from 4 but for the ones marked with an asterisk.

to justify the discrimination shown not only on the basis of a search for distinctiveness.

Whatever the case, it is important to note, once more, the predicted association between

identification and bias is only weak. Also, as for the previous study, we see that this

happens when the motivations that drive toward ingroup identification are of a socio-

emotional nature.

4. Study 3 - Japanese University students

4.1 Participants and procedure

The participants in this study were 133 students of different Japanese universities (in

Japan). The measures from which we obtained the data necessary for this study were

actually included in another study which addressed parallel research questions[11].

Participants were approached individually outside their classes at random, and asked to

fill in a questionnaire concerning the everyday experience of university life. Seventy

nine male participants and 54 female participants agreed to participate in the study.

Their age ranged from 18 to 29 years (Mean = 21 years).

4.2 The questionnaire

In the first part of the questionnaire participants answered a shorter version (14 items),

of Triandis' (1988) collectivism/individualism scale, and a shorter version (7 items) of

Hinkle and Brown's (1992) scale of relational/autonomous orientation. Then followed

six items (from Brown et al., 1986) for the measurement of ingroup identification and a

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[11] We thank Yashi Usuda for his help in collecting the data and taking part in the back translation procedure. The aim of the original study was that of testing the Hinkle and Brown model in a collectivist culture while testing the effect of some other possible moderating variables of the identification/bias relationship.

semantic differential with 11 bipolar scales where participants had to rate "a typical member of your university" as the ingroup, and then "a typical member of another university" considered as the outgroup. In the last pages of the questionnaire participants found the 42 item scale for the measurement of functions of ingroup identification used in study 1 and study 2. All the items in the scales were measured on 7 point Likert-like ratings and in every scale the number of items with positive and negative wording was balanced.

4.3 Results

The scales of collectivist and relational orientation were the first to be answered by the participants. The results concerning these are considered[12] and discussed in chapter 4.

4.3.1 Ingroup identification

The three items measuring the identification with the ingroup using a positive wording were combined in a single score which had a mean of M = 4.75, s.d. = 1.13 and a reliability coefficient of alpha = .68. Participants thus showed a moderately high level of identification with the ingroup of university students. This value was also significantly lower than the identification level displayed by football supporters t(250) = 5.625, p< .001; but not significantly different from the level of group identification shown by English psychology students t(256) = 1.681, p< .09.

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[12] The correlations between ingroup identification and ingroup bias were: R = .48, p<.001 in the collectivist/relational cell; R = .15, n.s. in the collectivist/autonomous; R = .21, n.s. in the individualist/relational cell; and R = .02, n.s. in the individualist/autonomous cell.

4.3.2 Measures of intergroup attitude

Ingroup bias

The 11 initial scores of ingroup bias obtained from subtracting the outgroup evaluations from the ingroup evaluations, were combined in one single score of ingroup favouritism (reliability coefficient alpha = .64). Its mean M = -.20, s.d. = 1.06, significantly different from zero, $t(128) = -2.09$, $p<.04$, is very low and negative in sign, meaning the display of a slight outgroup favouritism. This score is surprising because it is significantly different from both the average ingroup bias score reported by English students $t(255) = 8.625$, $p<.001$ and that reported by football supporters $t(179) = 9.544$, $p<.001$. Especially in comparison to English students who displayed the same level of ingroup identification.

4.3.3 Functions of identification

The 42 items measuring functions of identification were factor analysed exploring whether the five factor solution encountered so far in the previous two studies would be replicated in this sample as well. The meaning of the items loading on the five factors, and their respective reliability coefficients are shown in Table 6.8. It was difficult to name these factors in a way that represented all the concepts expressed by the items while still emphasising enough the overlap between this sample and the previous ones. Therefore, as we did before, the items that overlap across samples are shown in bold. In this way it is possible to compare this factor structure to the previous samples.

Factor 1 represent a function of social help, personal rewards and unity (M = 4.32, s.d. = .91), factor 2 expresses a detachment from the group (M = 3.59, s.d. = 1.07); factor 3 represents ingroup comparison (M = 3.70, s.d. = 1.45); factor 4 the function of self and

Table 6.8 Factorial structure of the scale of functions of identification in the Japanese University student sample; in bold are reported the items loading in the same factor across the four groups.

Content	Unity Help Rewards	Distance	Ing. Comparison	Self, Social Knowledge	Self Categorization, Relational
32. There is a sense of community and unity in this group	.672				
35. Some of the benefits I have come from the fact that I am a member of this group	.665				
34. Being a member of this group gives me opportunity to do something for its members	.637				
38. As a result of belonging to this group I feel more self confident	.595				
30. In this group we do what we can to help each other	.555				
5. When I am with others of this group I always have fun	.526				
33. There are absolute standards by which this group can be evaluated	.447				
41. In this group we do not work together very well	-.462				
44. I get so many rewards in this group that it is worth staying	.443				
47. I am not doing better compared to other members of this group		.672			
25. As a member of this group I don't feel useful		.657			
42. I cannot say what I really think to others in this group		.610			
22. I find it difficult to express my feelings to others in this group		.509			
21. Working with others in this group is more trouble than it is worth		.444			
7. I am better than some others in this group			.872		
20. Some others in this group are worse than I am			.760		
36. I have not gained much insight into myself from other members of this group				.677	

Table 6.8 (continued) Factorial structure of the scale of functions of identification in the Japanese University student sample; in bold are reported the items loading in the same factor across the four groups.

Content	Unity Help Rewards	Distance	Ing. Comparison	Self, Social Knowledge	Self Categorization, Relational
28. I don't think it is necessary to do as other members of this group prefer				.499	
11. This group does not give me a sense of belonging				.402	
12. I seldom validate my opinion by comparing them with those of others in this group				.399	
6. Other members of this group have not helped me to understand myself better				.326	
8. I often compare this group with other groups					.753
3. Being part of this group means that there specific expectation as to how one should behave					.602
39. I see others in this group mainly as members of the same group rather than as separate individuals					..544
40. It is not possible to assess this group's achievements without comparing them with those of other groups					.407

social learning (M = 4.76, s.d. = .83) and factor 5 represents self categorisation and the relational orientation (M = 3.78, s.d.= 1.28).

In order to examine the differences between these means, a one way analysis of variance was performed. Results showed a significant effect of the factor "functions" $F_{(2,121)}$ = 22.963, p<.001. Also, post hoc pairwise comparison analysis revealed that the

difference between the mean score of factor 4 and the mean score of factor 1 is significant, indicating that the identification function considered most important by Japanese students is that of self and social learning, as we already observed for the English students sample.

4.3.4 Path analysis

In order to investigate the relationship between functions of identification, ingroup identification and ingroup bias, a path analysis was performed, the results of which are shown in figure 6.3. In Table 6.9 the correlation matrix between all the variables included in the analysis is reported.

Figure 6.3 Results of the path analysis in the Japanese university student sample
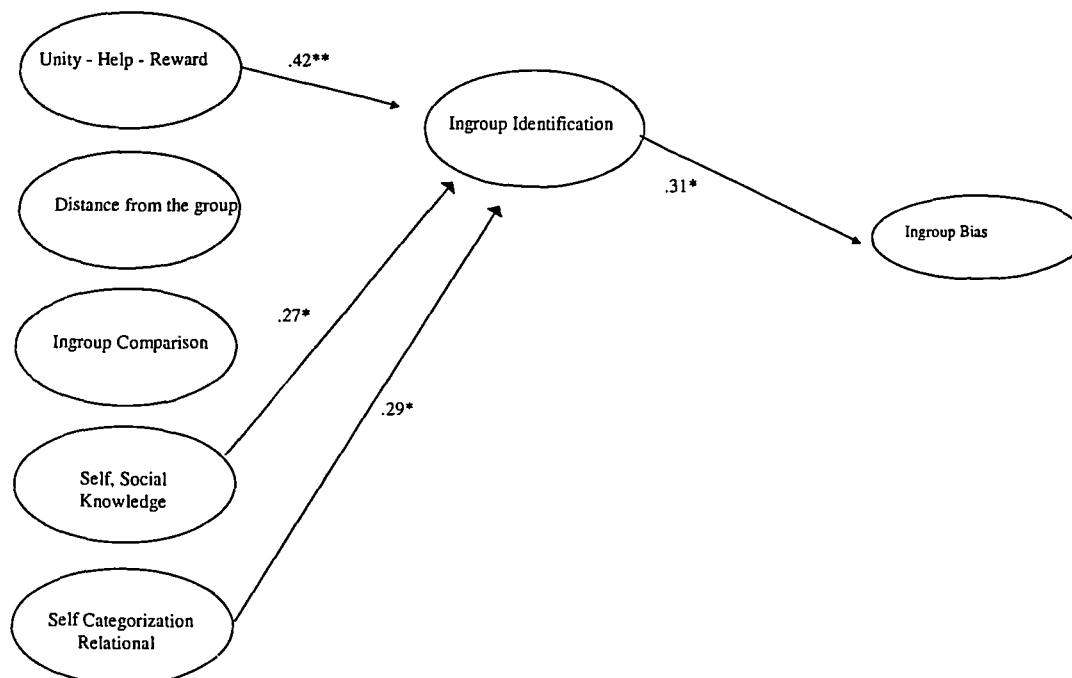
Of the five factors representing functions of ingroup identification, three are significant

predictors of the level of ingroup identification: factor 1 , β = .42, p<.001; factor 4, β =

.27, p<.05; and factor 5, β = .29, p<.05. So, for Japanese university students, to identify

with the ingroup of fellow university students is to get a sense of unity and some

material benefits, to learn more about themselves and the others, and to evaluate

themselves in comparison to other groups. Ingroup identification, in turn, is a

significant predictor of the level of ingroup bias displayed by participants (β = .27,

p<.05); once more, as predicted by SIT, the more identified with the ingroup are the

members, the more they display preference for their own group.

**Table 6.9: Correlation matrix between the variables included in the path analysis
(Japanese student sample)**
* **significant at p<.05**
** **significant at p<. 01**

	Ident.	Bias	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
Ident.	1.00						
Bias	.23**	1.00					
Factor 1	.67**	.20*	1.00				
Factor 2	-.30**	-.02	-.25**	1.00			
Factor 3	-.04	-.06	.03	.07	1.00		
Factor 4	.45**	.00	.42**	-.21*	-.10	1.00	
Factor 5	-.19*	-.09	.01	.19*	.30**	-.13	1.00

4.4 Discussion

In this group of Japanese university students, the sense of identification is driven by

motivations of unity, rewards and help, of social learning and of self categorisation and

relational orientation. To be part of this group means that ingroup members can enjoy living a collective experience, and they can benefit from a network of people that they can help and from which they can receive help. On the other hand being part of this group means to have a chance to learn social skills and it implies some comparison with other groups. We have already discussed, when talking about the English students sample, the particular interest raised by the self and social learning function of identification. We think that the same considerations are valid for this sample of students as well. In short, the close everyday contact experienced and the sharing of worries and successes provides ingroup members with a wide range of social experiences that they appreciate and value. In this group they learn and test the extent to which they can predict and react to the social environment as well as other people.

This is a group that generates a fair amount of identification in its ingroup members who, on the other hand do not display ingroup favouritism over an outgroup. Especially when compared to the results of the English student sample, it is interesting to notice the absence of ingroup favouritism that, on average, is displayed by members of this group. A possible explanation of this difference might rest, of course, in the cultural differences that characterises the two groups. The Japanese culture is usually considered more collectivist (Hofstede, 1980) than the British and this may have been reflected in the evaluations of the outgroup. However the collectivist culture of participants is probably not enough to explain this low level of ingroup favouritism. Remember that Hinkle and Brown (1990) did not expect the collectivist orientation of groups to prevent them from displaying ingroup bias. They predict a stronger effect of Social Identity Theory's principles in a collectivist group (in the form of an identification-bias correlation). We therefore need to hypothesise something more distinctive about the

Japanese culture that might have affected the display of ingroup bias. One possibility is that the feelings of rivalry that participants might experience toward outgroup members are not socially accepted in the form of differential evaluations of ingroup and outgroup. So, therefore, the threat of social sanctions of disapproval might be the factor responsible for this result.

In addition, besides being not extremely high, the level of ingroup favouritism is predicted only moderately by ingroup identification. This result is also similar to that obtained with English students, where the regression coefficient of ingroup identification on ingroup bias was only $\beta = .21$. Thus, similar conclusions might be drawn for the two samples. Once more, we look at the meaning associated with ingroup identification for an explanation. In these groups, where identification with the group only has a collective and social learning meaning, the display of ingroup bias is not very useful or functional, therefore it is not displayed as a consequence of ingroup identification.

5.1 Study 4 - Trade Unionists

5.1 Participants and procedure

Participants in this study were 102 trade union members from two different National Health System trusts. With the cooperation of the senior shop stewards of the union concerned, we obtained a list of the members and sent questionnaires to their home addresses, asking them to participate in this study. The study was described as being concerned with the relationships between management and trade unions. Questionnaires were returned via mail to the main Union office where we collected them. Participants were 28 males and 74 females with an age range between 20 and 63 years (Mean = 42

years).

5.2 The questionnaire

The original questionnaire was part of a separate study[13] designed to identify the antecedents of the level of commitment shown by union members. This part of the questionnaire comprised 46 items exploring different areas of the intergroup relation existing between unions and management; the areas addressed in the scales are listed below:

- Loyalty (12 items measuring the level of loyalty toward the union experienced by its members).

- Belief (3 items measuring the members' ideological beliefs in the values and objectives of unionism).

- Out-group stereotyping (6 items measuring the members' stereotyped vision of the management sector).

- Perceived intergroup conflict (6 items measuring the attitudes of the union members regarding the level of perceived conflict between the union and the management sector).

- Collective relative deprivation (6 items measuring the relative deprivation experienced as a group by the union's members).

- Union instrumentality (6 items measuring the extent to which union's members perceive their membership to the union as instrumental for their own benefits).

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[13] We would like to thank Tessa Feathers for helping with data collection of the present study and for useful suggestions on how to interpret some of the results in the light of her experience with trade unions.

- Social exchange/ perceived union support (6 items measuring the level of support the members perceive they receive from the union).

All items were measured on a 7 point Likert-like rating scale, and the positive and negative wording of the items was balanced.

From this section of the questionnaire we decided to use the subscales of outgroup stereotyping, perceived intergroup conflict and collective relative deprivation as measures of intergroup attitudes to compare with the measures used in the previous studies. Although the measures used in the studies are not identical, they measure the same concepts[14]. The rest of the questionnaire included the 42 plus 6 items for the measurement of functions of identification and ingroup identification as described in the previous studies.

5.3 Results

5.3.1 Functions of ingroup identification

The 42 items measuring functions of ingroup identification were factor analysed. The most stable solution across methods of extraction and rotations is obtained with a maximum likelihood extraction method and an oblimin rotation, extracting 7 factors. However, 2 of the 7 factors extracted were characterised by items with very low loadings which were also loading on more than one factor. Therefore, the final factorial

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[14] It is possible to see the content of the items comprising these three subscales in the appendix. If we then take a closer look at such subscales, we can easily see how the outgroup stereotyping subscale could be considered quite similar to the group homogeneity measure of study one. But, also, considering the explicit comparison between ingroup and outgroup used in this subscale, we could see similarities with a semantic differential, where we have an explicit comparison of the two groups involved as well. The subscale measuring intergroup conflict then can be considered again quite similar to the affective measures used in study one and two. A conflictual relationship between ingroup and outgroup we can imagine also represents negative affective dispositions toward the outgroup; and vice versa for non conflictual relationships.

structure presents five factors, the loadings of which are shown in table 6.10.

Factor one loads items that mainly express the function of "material rewards". This means that the group identification provides ingroup members with some materialistic benefits that give meaning to the fact of belonging to this group. Participants, by staying in the group and identifying with it mainly obtain some help and advantages that make it worthwhile. The composite factorial score of this function is M = 4.63, s.d. = 1.15 and its reliability coefficient is alpha = .85.

The second factor, "detachment from the group" brings together items expressing different functions of identification, but the negative wording of the items suggest that the factor indicates a way of distancing from the group by denying it any specific function. The mean of its composite factorial score is M = 2.90, s.d. = 1.11, and its reliability coefficient is alpha = .84.

The third factor, "ingroup comparison", had a mean of M = 3.27, s.d. = 1.42 and a reliability coefficient of alpha = .72.

Factor four is named "social learning" and it expresses the concept that the group is a good way of acquiring social skills and learning more about themselves and the others (also see Festinger, 1954). The items included in the factorial score had a reliability of alpha = . 79 and produced a mean score of M = 4.13, s.d. = 1.15.

Finally, factor five expresses the relational orientation, which is the extent to which ingroup members look and refer to other groups when evaluating their own ingroup. The mean of the factor is M = 3.88 , s.d.= 1.17 and its reliability is alpha = .61.

Table 6.10 Factorial structure of the scale of functions of identification in the Trade Unionist sample; in bold are reported the items loading in the same factor across the four groups.

Content	Unity Help Rewards	Distance	Ing. Comparison	Self, Social Knowledge	Self Categorization, Relational
35. Some of the benefits I have come from the fact that I am a member of this group	.69380				
46. Other members of this group have not increased my ability to get along with people	-.65726				
24.The only way for us to achieve something is by being member of this group	.56566				
44. I get so many rewards in this group that it is worth staying	..51237				
16. What I achieve is not only the result of my efforts but also depends on others	.48909				
38. As a result of belonging to this group, I feel self confident	.47353				
14. I can help others by staying in this group	.40740				
28. I don't think it necessary to do as my group members prefer	-.40213				
34. Being a member of this group gives me an opportunity to do something for its members	.38851				
21. Working with others in this group is more trouble than it is worth		.81074			
22. I find it difficult to express my feelings to others in this group		.79089			
25. As a member of this group I don't feel useful		.50981			
48. I do not enjoy myself very much with people in this group		.49405			
42. I cannot say what I really think to others in this group		.45130			
30. In this group we do what we can to help each others		-.44853			

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Table 6.10 (Continued) Factorial structure of the scale of functions of identification in the Trade Unionist sample; in bold are reported the items loading in the same factor across the four groups.

Content	Unity Help Rewards	Distance	Ing. Comparison	Self, Social Knowledge	Self Categorization, Relational
23. I do not have a clear idea of what the typical attributes of a member of this group are		.40647			
18. I would be better off materially if I didn't belong to this group		.33141			
20. Some others in this group are worse than I am			.84447		
7. I am better than some others in this group			.63011		
9. The ideas of other members of this group don't influence me much				.71806	
6. Other members of this group have not really helped me to understand myself better				.66541	
4. Others in this group don't help me to feel good about myself				.62746	
12. I seldom validate my opinions by comparing them to those of others in this group				.48698	
47. I am not doing better compared to others in this group				.37812	
11. This group does not give me a sense of belonging				.36951	
43. I am not really interested to see if this group does well or badly in comparison to others				.30356	
8. I often compare this group with other groups					.73164
40. It is not possible to assess this group's achievements without comparing them with those of other groups					.68630
39. I see others in this group mainly as members of the same group rather than as separate individuals					.35940

In order to explore the differences between the average scores of the five factors, a one way, within subjects, analysis of variance was conducted. The results showed a significant effect of the factor "functions", indicating that the five means scores are different from each other. Post hoc analysis also revealed that the mean score of factor one, the highest absolute value reported, is significantly different ($t(97)= 4.522$, $p<.001$), from the mean score of factor four, the next highest value reported. On the basis of these data and also supported by the content of the interviews conducted in the pilot study, we can conclude that in this group of trade unionists the sense of unity and the nature of the personal rewards that ingroup members receive are the main functions of ingroup identification.

5.3.2 Ingroup identification

In order to make meaningful comparisons with the previous studies, only the three items measuring ingroup identification with a positive wording have been used to compute a general score of ingroup identification (reliability coefficient alpha = .65). The mean of this score $M = 5.27$, s.d. $= 1.03$ indicates a strong feeling of ingroup identification with the Union. This score, although not as high as the one reported by football supporters ($t(218) = 2.221$, $p<.03$) is however significantly higher than the one shown by both samples of English ($t(224) = 4.992$, $p<.001$) and Japanese students ($t(232)= 3.514$, $p<.001$).

5.3.3 Measures of intergroup attitude

A general score of perceived intergroup conflict was obtained by averaging the six items included in the measure, with a reliability coefficient of alpha = .68. The mean score M

= 4.50, s.d. = 1.0 shows that ingroup members, on average, perceive a moderate level of intergroup conflict between the union and the management sector.

All the six items of the scale were used to compute a general score of relative deprivation, with a reliability coefficient of alpha = .71 and a mean score of M = 5.35, s.d. = .98. This shows that ingroup members experience quite a high level of relative deprivation, they feel they are denied opportunities or conditions that they actually deserve, and they feel upset about it.

Also for the subscale measuring outgroup stereotyping, the six items had been averaged to obtain a general score, with a reliability coefficient of alpha = .75 and a mean score of M = 4.82, s.d. = 1.01. In general we can say that ingroup members display a moderate level of outgroup stereotyping.

5.3.4 Path analysis

To investigate the relationship between the variables included in the questionnaire and described so far, a path analysis was carried out. The results are shown in Figure 6.4 and

Figure 6.4 Results of the path analysis in the Trade Union sample
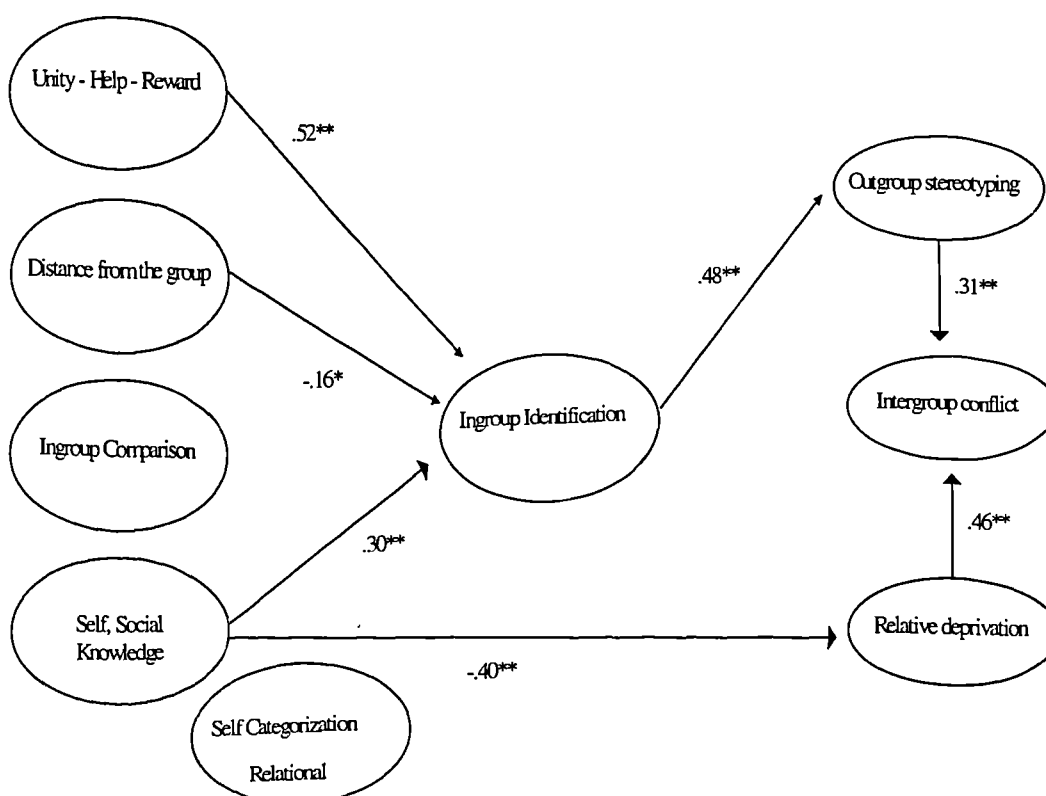
the correlation matrix between all the measures included in the analysis is reported in

Table 6.11. Considering first the ingroup identification measure, we can see that of the

five factors representing functions of identification, three significantly predict ingroup

identification. Factor 1, "rewards" has a regression coefficient of $\beta = .52$, p<.001; the

second function, "distance", has a regression coefficient of $\beta = -.16$, p<.05; the third

function is the "social knowledge function" ($\beta = .30$, p<.001).

The other two factor scores, ingroup comparison and relational orientation, did not

make any significant contribution to the prediction of the level of ingroup identification

and on this basis we conclude that they are not important functions of identification for

this group.

Table 6.11: Correlation matrix between the variables included in the path analysis (Trade Union sample)
*   significant at p<.05
** significant at p<. 01

	Ident.	Conflict	Outgr. Ster.	Rel. Depriv.	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
Ident.	1.00								
Conflict	.02	1.00							
Outgr. Sterot.	.51**	.50**	1.00						
Rel. Depriv.	.16	.58**	.56**	1.00					
Factor 1	.77**	.03	.44**	.21*	1.00				
Factor 2	-.59*	.09	-.24*	-.11	-.55**	1.00			
Factor 3	-.11	-.16	-.05	.01	-.12	.22*	1.00		
Factor 4	.64**	.17	.25*	-.10	.52**	.60*	.16	1.00	
Factor 5	.15	-.17	.01	-.05	.20*	.07	.14	.04	1.00

In the second part of the path analysis we looked at the predictors of the three intergroup attitude measures. First of all, outgroup stereotyping is significantly predicted by ingroup identification (β = .48, p<.01) indicating that the more participants are identified with the ingroup, the more they perceive the outgroup in a stereotypical way. This in turn is related with the perceived conflict between ingroup and outgroup, as outgroup stereotyping has a significant regression coefficient on perceived intergroup conflict (β = .31, p<.01). The level of perceived intergroup conflict is also predicted by the level of relative deprivation (β = .46, p<.01). And relative deprivation, in turn, is significantly predicted by factor four (β = -.40, p<.01): the more participants identify with the ingroup for reasons of social learning, the less they feel relatively deprived.

5.4 Discussion

As in the previous studies, the main function of identification is the first factor obtained from the identification function scale. Members of this group seem to identify with it because it gives them a strong sense of unity and also because it gives them the opportunity to help others. But even more important is the fact that only by being part of this group can they obtain the material benefits they currently have. It is in fact not difficult to understand the sense of reciprocal protection originating from a trade union. In this case, therefore, the rewards and benefits that the members receive from their group are definitely material ones. Also, this is the only group where this aspect of ingroup identification was so pronounced. So, although the composition of the factors representing functions of identification is quite similar across the groups, still one of the main differences that we find is in the emphasis on the materialistic aspect of rewards

that factor one has for trade unionists.

Another consideration concerns the overall level of identification displayed by ingroup members. The fact that this group and the football supporters displayed the two highest scores of ingroup identification can somehow be related to the nature of the groups themselves. We might argue in fact that while trade unionists and football supporters are groups faced with the existence and the opposing interests of an outgroup, university students are only occasionally concerned with the reality of an opposing outgroup (or at least to a lesser degree). Probably the outgroups we confronted our participants with were much more threatening to trade unionists' and football supporters' identity. As a result, the first two groups responded with a higher level of ingroup identification compared to the other two groups.

In the trade union, besides being strongly identified with the ingroup, members also showed some of the problematic intergroup attitudes anticipated by social identity theory. Participants report a positive level of outgroup stereotyping (above the mid point of the scale), which means that they have a uniform, undifferentiated view of the outgroup that justifies and motivates the hostility toward the outgroup (here measured as perceived intergroup conflict). Also members of this group feel quite deprived as a group compared to what they believe they deserve. This feeling of deprivation also might contribute to a feeling of conflict between ingroup and outgroup that is potentially dangerous.

So, in general, in this group we can see that once that the sense of identification has mainly materialistic interests and motivations, it produces outgroup stereotyping tendencies that in turn lead toward a conflictual intergroup situation. In this instance, where the predictions of SIT are met with more precision (given the relatively high

regression path from ingroup identification to outgroup stereotyping), identification had meanings that, although different from self esteem, were still self oriented and self interested. Our conclusion therefore is that only when in presence of materialistic or self interested motivations to identification, then ingroup identification can explain hostile intergroup attitudes.

6. Comparing the results of the four studies

In order to find an aswer to the questions we posed at the beginning, we must compare the results across the four studies.

Our first interest was to see whether the different groups would share a similar concept of the possible meanings of identification. If this is the case, we should expect to find a certain degree of similarity in the factorial structure of the scale of identification functions across different groups. It is statistically very difficult to demonstrate unequivocally the similarity of a factorial structure across different samples, especially when using exploratory factor analyses, as in this case. The use of confirmatory factor analysis, on the one hand, would make the comparison possible, but it would imply a perfect overlap of the factorial composition, which is not quite what we were expecting (given the numerosity of the items and the possibility of them being interpreted differently in different contexts). Moreover, the number of participants in the four samples is not sufficient to perform a confirmatory factor analysis. One alternative is therefore that of looking at the meaning of the factors emerging from the exploratory analysis and to see whether their content is at least similar in the four groups. Another possibility is that of comparing two groups at a time on each factor, and look at the rank order correlation between the loadings of all the items on that factor (which is to say to

consider the factor loadings as simple scores rather than as correlations and to explore their association). High correlations would indicate that the loadings of the items on the factors have a similar rank order, and therefore similar structure across samples.

Thus, considering factor one (in Tables 6.1, 6.5, 6.8, and 6.10), we can first see that 5 items, the ones reported in bold, are always present in this factor, in the four samples. These items are the ones that in most cases have the highest loadings in the factor and that have been chosen to represent the factor, allowing us to name it "unity, help and reward". If we consider instead the Spearman rank order correlations between the loadings of the 42 items (on factor one) in the four samples, we find that these range from .64 to .77. From this second analysis we can conclude that the order (which corresponds to their importance) of the items in this factor is quite similar across samples, as we hoped to find.

As far as factor two is concerned, four items consistently load on this factor, and they are the ones we used to name it "distance and detachment" from the group. For this factor, the Spearman rank order correlations between the loading of the items range from .27 to .58; lower than the ones for factor one, but still moderate to high in magnitude.

Factor three is always formed by the two same items in all the four sample, and there is therefore little doubt about its meaning legitimately being that of ingroup comparison. The Spearman rank order correlations between the loadings of the 42 items across sample range from .41 to .63.

Factor four creates some problems as its meaning can change from that of self and social learning (e.g. psychology student) to individualism (e.g. football supporters). The correlations between the loading of the items in the factor across samples range from .29

to .53 (i.e. pretty much as for factor 2).

Finally, three items are loading on factor five, defining it as a self categorisation and relational orientation factor. The Spearman rank order correlations between the loadings of the 42 items onto this factor, however, ranged from .29 to .48, therefore only moderate in size.

To conclude, we can answer our first question saying that different groups share a somewhat similar factorial structure of the concept of functions of identification, with some minor differences. Similarity of factorial structure across samples is very important. It allows us to compare the four groups on the various factors, to investigate differences between groups.

The second question we were trying to answer with these studies concerned the importance assigned by the different groups to the factors representing functions of identification. The first way of testing this hypothesis is to compare the mean factor scores of the five functions across the four groups. Using these factorial scores, we performed a two way analysis of variance with one between factor, "group" (with four participant groups) and one within factor, "functions" (the five functions). The main effect of group was significant ($F(3,438) = 7.66$, $p<.001$), as was the main effect of functions ($F(4,1752) = 73.66$, $p<.001$). The interaction was also significant ($F(12,1752) = 21.23$, $p<.001$). In order to understand the nature of this interaction, it is helpful to look at the simple main effects of "group" for every one of the five levels of the functions factor. If we do so we see that there is a significant simple main effect of "group" within function one $F(3,457) = 4.17$, $p<.0017$, function two $F(3,457) = 19.52$, $p<.001$, function three $F(3,466) = 10.33$, $p<.001$, function four $F(3,461) = 19.55$, $p<.001$, and function five $F(3,468) = 11.43$, $p<.001$ (Cell means, marginal means and

significant effects are summarised in Table 6.12 and 6.13).

Table 6.12 Mean scores of the identification functions in the four groups

Sample	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
Psychology Students	4.16	3.39	4.00	4.20	3.40
	(.93)	(1.11)	(1.40)	(.95)	(.95)
Football Supporters	4.34	2.30	4.41	4.48	4.34
	(1.36)	(1.19)	(1.85)	(1.31)	(1.43)
Japanese student	4.32	3.59	3.70	4.76	3.78
	(.91)	(1.07)	(1.45)	(.83)	(1.28)
Trade Unionist	4.63	2.90	3.27	4.13	3.88
	(1.15)	(1.11)	(1.42)	(1.15)	(1.17)

Factor 1: Unity – Help – Reward function
Factor 2: Distance function
Factor 3: Ingroup comparison function
Factor 4: Self and social knowledge function
Factor 5: Self categorisation, relational function

These significant main effects now indicate that in reality members of the different groups assign different importance to different functions of identification.

Table 6.13 Analysis of Variance testing the difference between identification functions in the four groups

	Mserror	d.f.	F	P level <
Group	730.48	3, 438	7.66	.001
Function	2375.39	4, 1752	73.66	.001
Group x Function	2375.39	12, 1752	21.23	.001
Simple effect of Function within group 1	532.27	4, 488	12.99	.001
Simple effect of Function within group 2	691.13	4, 404	50.80	.001
Simple effect of Function within group 3	614.69	4, 496	25.23	.001
Simple effect of Function within group 4	537.30	4, 364	31.14	.001

However, to see whether different groups really are characterized by different functions of identification, we might compare the regression paths of functions of identification into ingroup identification in the four samples. If we do this we see that the functions

predicting ingroup identification in the four samples are respectively represented by

factor: 1, 4 and 5 for psychology students; 1,2, and 3 for football supporters, 1, 4 and 5

again for Japanese university students and 1,2 and 4 for trade unionist. It is easy at this

point to realise that, besides the two student groups, no other groups share the same

combination of functions as predictors of ingroup identification. So our answer to the

above question is that the groups studied do have different motivations to identify with

the ingroup.

The last issue we wanted to investigate in this study concerned whether differences in

identification functions would be reflected in the level of association between ingroup

identification and measures of intergroup attitudes. To find an answer to this question,

we compared the regression coefficients of ingroup identification on intergroup bias (the

measure of intergroup attitude used in three of the four studies) across the four groups.

These regression coefficients were $\beta = .21$ for the psychology student sample; $\beta = .28$

for the football supporter group; $\beta = .31$ for the Japanese university student group; and

finally $\beta = .48$ for the trade unionist group. The first three coefficients are not

statistically different from each other. This partially confirms hypothesis 3 as

psychology students and Japanese university students, not having different functions of

identification are not expected to have a different level of association between ingroup

identification and ingroup bias. Nevertheless, we would expect them to have a different

identification-bias association compared to the football supporter group (from which

they differ in functions of identification). This is not the case, though, as the size of the

association identification-bias is the same between psychology students and football

supporters and between the latter and Japanese university students. As far as the trade unionist group is concerned, group members show a level of identification-bias association significantly different from all of the other three groups (from which they also differed in terms of identification functions).

7. General Discussion

The general purpose of this study was that of demonstrating that social groups are different from each other and that if we consider some of the possible differences that characterise social groups we can come to a better understanding of intergroup relations. In this study we have built a scale for the measurement of functions of identification that integrates previous similar scales (Deaux, 1996; Torres, 1996). At the same time, having conducted in depth interviews with members of some of the groups included in the study, our measure was different from the previous ones as it reflected the range of functions of identification really important for group members, and not just the ones generated by research interests. It is therefore legitimate to say that most of the possible meanings of ingroup identification were investigated in this study in a more extensive way than it had been done before.

Once that this scale was administered to members of four different social groups they reported a similar factorial structure (that indicates a shared concept of functions of identification) and different levels of endorsement of the single functions of identification.

So we can say that the results previously obtained by Deaux (1998) and Torres (1996) have been replicated and we have further evidence that groups are different in the motivations that drive their identification.

But what is the effect of groups having different social identification functions? From the results of this study we can conclude that the highest level of association between ingroup identification and ingroup bias is shown by a group whose motivations for identification are mainly materialistic and involve the gaining of personal benefit in a reciprocal manner. On the other hand, groups like university students (English psychology students as well as Japanese university students), which identify with the ingroup for reasons of individuation and for the need of learning social skills that improve their self and social knowledge, show a lower correlation between ingroup identification and ingroup bias. So it seems like the variation in the association between identification and bias can be partially explained by group diversity in groups'motivations to identify.

Despite the good results obtained in this study, still some questions arise that cannot be fully answered on the basis of these data. These four studies in fact were all exploratory in nature and therefore we could not test specific hypothesis concerning the groups. Therefore one of the issues that still remains open concerns the direction of the causality in the relationship between meanings of identification, identification and bias. Another question that still needs an answer is: Which specific function of identification would produce which intergroup attitude? Also, what is the extent to which functions of identification are associated with particular social groups? One of the aims of this study was that of clarifying the results previously obtained by Deaux and Torres in the attempt to create a map of the association between social groups and functions of identification. This does not seem to be a very easy task; the use of exploratory factor analyses, and in general of a very long scale for the measurement of functions of identification seem to have created very complex factors that represent more than one function at a time and it

is therefore now very difficult to provide a clear cut classification of groups. Also it could be the case that the motivations of identification of specific social groups change over time, making the task virtually impossible. Another thing to be clarified is therefore the stability of the meaning of identification in social groups. All these aspects will be investigated in the next two chapters of this thesis.

Chapter 7

An experimental study on functions of ingroup identification and their impact on intergroup attitudes

1. Introduction

In the previous chapter we found that members of different social groups have different motivations for identifying with their ingroup. For the members of a football supporters group, for instance, being in this group means that they can feel close to other people and that this sense of support and unity can develop in the excitement and in all the forms of behaviour (shouting, singing, etc.) that are so emotionally salient in the context of a football stadium. Also, identification with this sort of group makes it possible for ingroup members to compare themselves with each other and to evaluate themselves on the basis of a comparison with a significant "other" who is similar to them. On the other hand, when university students think of the reasons that motivate their identification with the category of "students", they report these being the sense of collectivity experienced in the group, but also the fact that the contact with other members of this group helps them to know more about themselves and the way they react to others in social contexts. Here we see that an important function of ingroup identification is that of improving the social skills of the individual by creating the opportunity for many significantly instructive social experiences. Differently again, members of Trade Unions

describe identification to their ingroup as important for them because the association with other members projects an image of a cohesive group that is crucial in providing them with the material benefits they hope to reach through belonging to this kind of group.

Following the discussion of these results, and their integration with those of Deaux (1996) and Torres (1996), we think it is reasonable to suppose that identification with social groups is characterized by different functions, and that the motives that justify and drive members of a particular social group to identify with it differ across groups.

The second crucial finding of the previous study was that ingroup identification would predict the level of intergroup bias (or ingroup favouritism) displayed by a group, depending on the nature of the functions of identification with that specific group. Our findings showed that in groups for whom ingroup identification served more materialistic functions, identification predicted ingroup bias better than in groups for whom ingroup identification had a more socially oriented function.

The results of the previous study clearly take us a step further in the understanding of the role of functions of ingroup identification. Put together, these two pieces of information seem to suggest that *ingroup identification will predict a specific intergroup attitude (e.g. ingroup favouritism) only when ingroup members attribute to their sense of identification a meaning that is consonant (or functional) to the attitude consequently displayed.* This consideration is already implicit in SIT, according to which ingroup favoritism is displayed in order to maintain a positive self esteem and social identification. But we add the consideration that motivations other than self esteem still give a meaning to ingroup identification and thus play a role in the subsequent display of intergroup attitudes.

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In real life groups like the ones in the previous study, there can be several functions of ingroup identification. It is therefore difficult to obtain a clear idea of the most important meaning of identification in a specific group. To fully understand intergroup relations and isolate single functions of identification, an experimental approach has to be taken. The purpose of this study is that of demonstrating in an experiment that a specific meaning of identification with a certain ingroup determines the kind of intergroup attitudes displayed by the group.

Once the meaning of ingroup identification has been successfully manipulated so to create two groups with completely different functions of ingroup identification, we expect to find that ingroup identification will only predict intergroup attitudes that are consonant with the meaning of those functions .

From the results of the previous study we observed that of the many functions ingroup identification can serve, two seem particularly meaningful and also especially different in content from each other. On the one hand, ingroup identification can serve a materialistic function: Being part of a group partially determines the concrete benefits for its members (as in the case of the trade union group). On the other hand, ingroup members can identify with a group for self and social learning purposes, meaning that the primary function of ingroup identification in this case can be that of providing opportunities to improve members' social skills, getting to know themselves better and the way they react to others in social situations.

In this experiment we decided to focus on these two different functions of ingroup identification (materialistic vs. socio-emotional). We manipulated the meanings of identification served by a social group. We expected to find that when the function of identification of a group is of a materialistic nature the level of ingroup favouritism

displayed by the members of that group will be successfully predicted by their ingroup identification (as also stated by Hinkle and Brown's interpretation of social identity theory). Also, ingroup identification will not be able to predict other kinds of intergroup attitudes, like social cooperation, because in this group ingroup identification will not have a function which is in line with intergroup attitudes such as social cooperation. Conversely, in a group where ingroup identification had been successfully manipulated as being based on a self and social learning function (which we shall call "socio-emotional"), a positive attitude toward intergroup cooperation would be in line with the meaning of ingroup identification. In this case we would expect ingroup identification to be a significant predictor of intergroup cooperation but not of ingroup bias and other discriminatory behaviours.

2. Participants and procedure

Participants in this study were 97 undergraduate psychology students at the University of Kent, who all participated in the experiment to fulfill a part of their course requirements.

After arriving in class and being seated, participants were told that as part of the new interactive policy of the department, their opinions regarding more administrative matters would be sought. They were then given a booklet containing some information about the department and were asked to give their opinions about how to solve various controversial aspects of the management of the department as well as how to update next year's undergraduate guide for prospective students in psychology.

In the first page of the booklet, participants read a newspaper extract that gave them some information about an official BPS report describing attributes of the new

generation of psychology students. In fact, the journal article was written by the experimenters and was used to manipulate the meaning of students' group identification by exposing them to the opinion of an influential source of information. The first version of the article described psychology as "a passport to success" saying that psychology students are the ones who, thanks to the skills acquired during their courses, are the most sought after on the job market. In this way we intended to manipulate the meaning of identification of group membership as being mainly materialistic. Being part of this group would then imply that members could benefit from it materially and economically ("materialistic" condition). The second version of the article described psychology as a "passport to serenity" since the BPS report presented psychology students as having better social skills and being very good at judging themselves and the others. The nature of the courses taken during their degree were said to give psychology students a better insight into themselves and their relationships with others. In this way we intended to manipulate the meaning of ingroup identification of participants as to be mainly socio-emotional ("socio-emotional" condition). The different versions of the bogus journal article were presented to participants randomly to assign them to the two experimental conditions.

On the next page, participants were asked to complete a sentence that described psychology students in line with the content of the paper article they had just read. This task was given to participants in order to strengthen the previous manipulation. It was thought that by thinking of a way to rephrase the content of the article, participants would embrace even more the conception of ingroup identification described in the article. To justify this task, participants were told that their suggestions and sentences would be used to integrate and improve next year's undergraduate handbook

Following this, the level of identification with the group of psychology students was measured via a shortened version of Brown et al.'s (1986) identification scale (six items).

At this point, students were asked their opinion about a realistic administrative issue regarding the department. They were told that an extra sum of £ 85,000 was available for next year's budget and that the head of the department would have to negotiate the way the money was to be divided between the Psychology department and the Accountancy department[1]. Ingroup favouritism was measured by providing participants with a matrix comprising seven choices of how to split the total sum. They were asked to indicate which split they would prefer. The central option would split the sum equally between the two departments, the options on the left would increasingly favour the outgroup relative to the ingroup, while the options on the right would increasingly favour the ingroup relative to the outgroup.

Intergroup cooperation was measured by asking participants to circle a number representing the amount of time they would be willing to spend in voluntary activities involving disabled accountancy students (seven options were offered, from no time to up to 3 hours by increases of 30 minutes each).

Other aspects characterizing the participants' intergroup attitude were measured in the following page via six items asking questions like: "How much would you like to cooperate with accountancy students in a joint students campaign ?", or " How much do you like accountancy students?". In the next section, a second measure of ingroup favoritism was taken using a semantic differential comprising ten adjectives on which

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[1] It was said that these two departments were the ones in more need of extra resources given their high students/staff ratio. Using Accountancy students as an outgroup also allows the results of this study to be compared with previous studies comparing psychology and accountancy students group membership.

participants had to rate first a typical ingroup member (psychology student) and then a typical outgroup member (accountancy student).

At this point the functions of identification served by the ingroup were measured using five items worded as to represent the five main identification functions in the previous studies; they were respectively: a materialistic function, unity and belonging, ingroup comparison, self and socio-emotional function, and a self categorization function. The last section of the questionnaire included the full scale for the measurement of functions of identification built and used in the previous chapter.

All the items in the subscales were measured using seven point likert-like rating items and where several items were used, the number of items with a positive and negative wording was balanced.

3. Results

3.1 Manipulation checks

In order to check the effectiveness of the experimental manipulation, we investigated differences between the two conditions on all the items assessing the functions of identification (last section of the questionnaire described above). Despite the fact that these items were found at the end of a relatively long questionnaire and therefore we might have expected the effect of the experimental manipulation to have decreased by the time participants would answer those items, we nevertheless found that the manipulation had operated in the expected direction. On four of the items measuring the meaning of identification, subjects in the two conditions reported significantly different scores. First subjects in the materialistic condition showed to be more interested in competitive comparisons with other psychologists ("Some other Psychology students

are worse than I am"); M1 = 4.42 , M2 = 3.87 for the materialistic and socio-emotional

condition respectively; t(93) = 1.934 , p<.03. Secondly, subjects in the socio-emotional

condition reported to have a clearer understanding of what being a psychologist means

compared to subjects in the materialistic condition. The significant difference between

the means of the two groups (M1= 4.92, M2=5.62, t(93) = 2.062, p<.02) indicates that

subjects in the socio-emotional condition paid more attention to personal characteristics

of the other members of the group. Thirdly, subjects in the materialistic condition

believe that "Psychology students do favours for each other" significantly more than

subjects in the socio-emotional condition. In the socio-emotional condition, the lower

average score (M1=4.54, M2= 3.72, t(92)= 2.057 , p< .02) indicates that participants are

less aware and probably less concerned about the favours and therefore material

benefits that psychology students interchange with each other. On the fourth item,

subjects in the materialistic condition consider a romantic relationship with other

psychologists more likely (M1=4.54) than subjects in the socio-emotional condition

(M2= 3.72), the difference between the two means being significant (t(93)= 2.125, p<

.036). It is more difficult to interpret this last difference, as, on one hand, one would

expect a higher score from subjects in the socio-emotional condition, given that they are

the ones more focused on emotions and feelings such as those generating from a

romantic relationship. On the other hand though, relationships at this age are not always

characterized by emotional interest, and it is therefore possible to interpret romantic

relationships as a "resource" for which students might at times compete. If we take this

perspective, it makes sense for subjects in the materialistic condition to show a higher

average score on this item.

Considering these differences together, consistent with our intended manipulation,

participants in the materialistic condition are (relative to the socio-emotional condition) more interested in competitive comparisons with other members of the group; don't know too much about the personal characteristics of other people in the their group; believe that members of the group favour each other; and compete for romantic relationships.

3.2 Ingroup identification

To obtain a score of ingroup identification, the six items comprising the scale were factor analyzed (principal component analysis, Varimax rotation); and the two factor solution that emerged distinguished between items with a positive and a negative wording. The reliability coefficients of the whole scale (alpha = .64) and of the negative subscale (alpha = .51) were lower than the coefficient for the positive subscale (alpha = . 71). Therefore we computed a general score of ingroup identification using only the three items measuring positive feeling of identification.

Although participants in the two conditions attributed different meanings to their group identification (different functions), the general level of ingroup identification did not differ significantly between the two groups (M1= 5.74, M2= 5.59, t(95)= .92, p< .36). In both conditions participants showed a fairly high level of identification with the group of psychology university students.

3.3 Measures of intergroup attitude

Our main experimental hypothesis concerned the extent to which ingroup identification would predict different intergroup attitudes given that the functions of identification differed. To test this hypothesis we compared the correlation coefficients between

identification and the different measures of intergroup attitudes in the two conditions.

Considering first of all the dependent variable ingroup favouritism as measured via a semantic differential, we find strong support for our hypothesis: Ingroup identification is strongly associated with and predicts ingroup bias (r = .56, p< .001, N = 48) when its function is materialistic in nature. But when the function of identification is socio-emotional, the identification-bias association is not significant and the level of ingroup bias displayed by group members cannot be interpreted as a consequence of their identification with the ingroup (r = .20, p< .166, N = 47). The difference between these two correlation coefficients is significant (Z = 1.98, p<.05, two tailed).

When we then turn to the second part of our hypothesis, concerning the association between ingroup identification and prosocial attitudes, we see that the correlation coefficient between identification and intergroup cooperation (measured by the amount of time that psychology students volunteered in helping disabled accountancy students) was r = -.09, p< .518, N = 48, in the materialistic condition and r = -.21, p< .16, N = 47 in the socio-emotional condition. Here the difference between the two correlation coefficients is non significant and therefore the experimental hypothesis is not supported (Zdiff = .58, p<.28). In any event it is important to note that neither coefficient was significantly different from zero, yielding the same negative result in both conditions. Intergroup cooperation is therefore not significantly associated with ingroup identification.

As far as the six items measuring the intergroup affective attitude are concerned, their correlation coefficients with ingroup identification are shown in table 7.1 (separately for the two experimental conditions).

Only one of the relevant pairs of correlations differs significantly from each other, Zdiff

= 1.72, p< .04 (the item concerned was "I would like to know more about Accountancy

Table 7.1 Correlations between identification and the six affective measures in the two experimental conditions; and the Z values testing the difference between correlations across samples.

Materialistic attitude	condition			Socio-emotional condition			Comparison of correlations	
	Corr.	Sig.	N	Corr.	Sig.	N	Z	Sig.
cooperate	-.10	.479	48	-.03	.839	47	.33	.37
know more	.15	.324	48	-.21	.152	47	1.72	.04
like	-.07	.655	48	.14	.363	47	1.00	.16
irritated	-.03	.821	48	-.11	.464	47	.38	.35
admire	-.01	.970	48	.08	.602	47	.43	.33
socialize	-.03	.861	48	.13	.379	47	.76	.22
general score	.01	.971	48	.02	.884	47	.33	.37

students). For the remaining items, as for the previous variables, the level of association between identification and intergroup attitudes does not vary significantly between the two experimental conditions. Combining the six items into a general score that represents the affective disposition toward the outgroup (alpha = .81), we find no significant difference between the identification/affect correlation in the two conditions (r = .01 in the materialistic condition and r = .02 in the socio-emotional condition) as Zdiff = .33, p<.37. However, it is worth noting that none of the correlations between the items measuring intergroup attitudes and ingroup identification is significantly different from zero. We could therefore interpret this result saying that, in fact, there is no association between identification and affective attitudes in either of the two experimental conditions.

Finally, considering the money allocation matrix, our analysis found that the correlation between identification and ingroup favouritism was r = .02, p<.91, N = 48 in the materialistic condition and r = .14, p< .357, N = 47 in the socio-emotional condition, showing no support for our hypothesis, given that the difference between the two coefficients is non significant (Zdiff = -.57, p< .28).

Similar to the results for identification, we expected no difference between conditions in the average score of the other measures. Accordingly, we found no effect of the experimental condition on: the choice of money allocation (M1 = 5.06, M2 = 4.96, t(93) = .45, p<.652); the amount of time volunteered for helping accountancy students (M1 = 4.04, M2 = 3.72, t(92) = 1.10, p< .294), various affective disposition toward accountancy students (see Table 7.2 for means and t values); or the level of ingroup bias (M1=.86, M2= .94, t(93) = .61, p< .544).

Table 7.2 Mean scores on the six items measuring the affective attitude toward the outgroup in the two experimental conditions; and the relative t-test results comparing the means across conditions.

Materialistic	condition			Socio-emotional condition			Comparison of means		
attitude	Mean	s.d.	N	Mean	s.d	N	T	df	Sig.
cooperate	4.08	1.58	48	3.83	1.05	47	.922	93	.359
know more	3.88	1.73	48	3.83	1.54	47	.134	93	.893
like	4.25	1.00	48	4.30	.59	47	-.284	93	.777
irritated	3.19	1.54	48	3.11	1.40	47	.268	93	.789
admire	3.90	1.10	48	4.02	.87	47	-.616	93	.539
socialize	4.50	1.27	48	4.32	1.12	47	.734	93	.465
General Score	4.24	1.01	48	4.20	.69	4	.211	93	.833

Our hypothesis was partially confirmed. Ingroup identification is correlated with ingroup bias when group members identify for materialistic reasons but not when they identify for more socio-emotional reasons. This supports the idea that ingroup identification motivates intergroup attitudes only to the extent that intergroup attitudes are relevant to functions of identification: Specifically, a materialistic function of identification motivates ingroup bias. However, we cannot extend this consideration to prosocial behaviours: Where ingroup identification was manipulated as to serve a socio-emotional function, this did not increase the extent to which identification was associated with intergroup cooperation or other positive intergroup attitudes.

It is possible, however, that the effect we hypothesized was present in the data but not so strongly to be revealed by the previous analysis. It is possible to gain more information from the present data set through a post hoc analysis. In one of the last sections of the questionnaire, we measured with five items the main functions of identification expressed by participants in the previous study. Of these five items, two measured specifically the materialistic and the socio-emotional functions of identification that we intended to manipulate. In this analysis we used these two items to distinguish those participants for whom ingroup identification had a strong materialistic function and a very weak socio-emotional function, and participants for whom, instead, ingroup identification had a strong socio-emotional function and a very weak materialistic function. Thus in this procedure we ignored the independent variable and created experimental groups as an observed variable. Splitting both variables at the median and crossing the new factors gave 14 participants for whom the main function of identification was the gain of materialistic benefits (while assigning at the same time very low importance to the socio-emotional function), and 21 participants for whom the

main function of identification was to gain a better knowledge of themselves and others in a social context (while at the same time assigning very low importance to the materialistic aspect of ingroup identification).

Using the new variable we tested our hypotheses again. First, we found that ingroup identification is a good predictor of ingroup bias in the materialistic group, $r = .58$, $p < .03$, $N = 14$, but not in the socio-emotional group, $r = .02$, $p < .93$, $N = 21$ (semantic differential measure). The difference between the two correlation coefficients is significant, $Zdiff = 1.68$, $p < .047$ (one tailed). The correlation between identification and ingroup favouritism on the money allocation matrix, is again not significantly different between the two groups ($r(14) = .10$. $p < .728$, materialistic vs. $r(21) = .27$, $p < .237$, socio-emotional; $Zdiff = -.46$, $p < .48$); and also, the direction of these correlations is contrary to expectations.

On the cooperation measure the two relevant correlations are in the predicted direction $r(14) = -.47$, $p < .09$, materialistic, vs. $r(21) = -.15$, $p < .498$ socio-emotional). Due to the relative lack of power of the comparison, we can consider such difference, even if not significant ($Zdiff = -.94$, $p < .17$), as preliminary support for our hypothesis. The corresponding correlations between identification and the six items measuring aspects of affective attitude toward the outgroup in the two subgroups are shown in table 7.3.

Here, of particular interest are the differences regarding the variables liking of the outgroup and irritation toward the outgroup. As we expected, there is a stronger positive relationship between identification and liking for the outgroup in the socio-emotional group ($r = .10$, $p < .668$, $N = 21$) than in the materialistic group ($r = -.31$, $p < .277$, $N = 14$, $Zdiff = 1.10$, $p < .13$). Also the relationship between identification and irritation was positive in materialistic group and negative in the socio-emotional group

(r(14) = .33, p< .24, vs. r(21) = -.38, p< .09, Zdiff = 1.94, p< 03, one tailed).

Table 7.3 Correlations between identification and the six affective measures in the two groups (obtained by selecting with a median split subjects with a high score on the materialistic function item and a low score on the socio-emotional function item, and vice versa); and the relative Z values testing the difference between correlations across groups.

Materialistic	group			Socio-emotional	group		Comparison of	correlations
attitude	**Corr.**	**Sig.**	**N**	**Corr.**	**Sig.**	**N**	**Z**	**Sig.**
cooperate	.08	.772	14	-.23	.314	21	.82	.21
know more	-.42	.137	14	-.16	.493	21	.74	.22
like	-.31	.277	14	.10	.668	21	1.10	.13
irritated	.33	.244	14	-.38	.089	21	1.94	.02
Admire	-.57	.033	14	-.06	.809	21	1.53	.06
socialize	-.32	.261	14	-.15	498	21	.44	.33

4. Discussion

In this study we attempted to experimentally manipulate the meaning that people assign to their identification with a specific ingroup: university psychology students. Much of the discussion of the results of this study therefore concern the possibility of such meanings to be actually subject to change. What we have discussed about functions of identification up to this point was that social groups[2] differ in this respect.

In this study, we began to show how the experimental manipulation could reasonably be

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[2] Or at least any of the ones considered so far by experimental research.

considered successful, on the basis of the differences observed between the two experimental groups on four items measuring functions of identification. The value and direction of the scores shown by the two groups was in line with the intended manipulation. However, out of the 42 items comprising the total scale, only 4 showed the expected difference between experimental conditions.

It is at this point that, in assessing the effectiveness of the manipulation, we might choose to consider functions of identification a very complex and stable construct, and therefore to accept that the differences we found on the four measures of functions of identification are enough to support the claim of an effective manipulation. Moreover, the fact that the items we regarded as a check of the experimental manipulation were answered by the subjects after a relatively long amount of time, and after having engaged in time consuming judgments, strengthens our position. One possible conclusion therefore is that the simple difference in the content of the journal article participants read at the very beginning of the experiment was responsible for the differences in the dependent measures that we obtained. Participants in the two conditions assigned different functions to their identification with the same ingroup.

Given this, we can then say that the main hypothesis of this study was confirmed at least in part: ingroup identification does predict those intergroup attitudes that are conceptually related to its meaning. Ingroup favouritism (when measured by a semantic differential) was strongly associated with ingroup identification only in the condition where the function of that identification was mainly materialistic. The same, though, was not true for the other measure of ingroup bias and for the other independent variables measuring more prosocial attitudes toward the outgroup. In these measures no effect of the experimental manipulation was detected.

In order to explain this asymmetry, we have first of all to consider the nature of the measures used. If, for instance, we look at the different results found for the same conceptual variable (ingroup favouritism) measured in two ways, we see that the more implicit measure of the two (the semantic differential) was sensitive enough to detect the effects of the manipulation in the expected way. The lack of positive results obtained with the money allocation matrix is perhaps due to the nature of the measure itself. It is possible that participants felt somewhat inhibited from showing ingroup favouritism when explicitly asked from the outset to compare two groups (they may have found it socially not very desirable to differentiate between two groups without adequate justification, see Otten et al., 1996). Another consideration that can help us to understand why we found only partial support for our hypothesis regards the difference between the dependent variables themselves rather than the way they are measured. Specifically, even though the underlying logic is slightly different, we suggest a possible similarity between these findings and those summarized by Mummendey and Otten (1998) when talking about the positive-negative asymmetry in the domain of intergroup differentiation. One of the arguments of these authors is that prosocial and antisocial behaviours are not the exact inverse of each other. What they argue is that prosocial behaviour is not simply what remains when an antisocial attitude is removed. The two might not work according to the same psychological mechanisms. Similarly we could consider the judgement of ingroup and outgroup on a semantic differential and a cooperative behaviour as different in nature. Identification processes might have a significant effect on antisocial attitudes but there may be no grounds to expect them to influence prosocial cooperation.

Of course the possibility remains that the experimental manipulation was not successful, given that there were several dimensions on which the meaning of identification in the two groups did not differ across conditions. Nevertheless, the secondary analysis still showed support for the experimental hypothesis. It was possible to reproduce the desired effects of the manipulation by selecting those participants that attached different meanings to their ingroup identification in the way intended by the experimental manipulation. Even though we were left with a small number of participants in each group, we found differences between the two groups in the correlations between identification and ingroup bias, and affective attitudes of liking and irritation. All these differences were in the hypothesized direction. On the basis of this analysis we similarly conclude that ingroup identification successfully predicts ingroup bias as well as other different intergroup attitudes, but only when such attitudes are consistent with the functions of the identification itself. In other instances some other factors seem to determine the intergroup behaviour. Of course, a question that naturally arises at this point concerns the determinants of social behaviour other than social identification. Hopefully future research will concentrate on these issues.

In conclusion, this study is an important contribution to the understanding of the role of ingroup identification in intergroup relations. Ingroup identification is a significant predictor of intergroup attitudes and behaviours, but only when these are functional to the meanings that ingroup members give to their identification. Some of the measures we used in this study were more sensitive than others in detecting such an effect, and therefore more research is probably necessary in order to strengthen this finding and also to generalize this effect to other intergroup attitudes. Moreover, despite the

interesting conclusions that can be derived from the results of this experiment, there are still issues opened in this discussion that remain unsolved, in particular the nature of identification functions, their flexibility, and the extent to which it is possible for them to change, either experimentally or naturally. In order to investigate these issues further, in the next chapter we will look at the temporal development of the meaning of identification in a group of clinical patients as they embark on a course of residential treatment.

Chapter 8

Functions of ingroup identification over time:

A longitudinal study

1. Introduction

In the previous study we already addressed specific hypotheses considering social identification as the attitude that group members hold toward their group membership. We took a functional approach in the study of this attitude addressing questions like: do different people, especially those belonging to different groups, hold the same attitude for different reasons? How does the relationship between attitude and behaviour change when groups hold the same attitude for different reasons (i.e. when it serves different functions)? And what is the relationship between the function of an attitude and the behaviours consequently displayed ?

In the study of attitudes the functional approach has received only limited attention in recent years (Katz, 1960); whatever the reason, there is little known about functions of attitudes. In our examination of a specific attitude: "ingroup identification", we have investigated many of its aspects. We now know more about the possible functions it can serve in different groups and about its effects on intergroup differentiation and

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intergroup cooperation under different circumstances. But many issues still remain open to investigation. For instance, what is the temporal nature of the motivations that drive people toward ingroup identification? How flexible and variable are the functions of attitudes?

According to Herek (1986) functions of attitudes depend on many factors: personal characteristics (e.g. need for affiliation, self-awareness, etc.) domain characteristics (i.e. the object of an attitude) and situational characteristics (e.g. time and place). A change in any of these aspects is assumed to change the function of a specific attitude. The consequent idea is that functions of attitudes are extremely flexible across contexts. Nevertheless, neither Herek (1986, 1987) nor others interested in the study of functions of attitudes (e.g. Maio, 1994) have any specific suggestion about the temporal variations of functions of attitudes. The only implicit idea is that the function an attitude can serve for a specific person or group of people can vary at any time, following a change in any of the three characteristics described by Herek.

But what is exactly the extent to which functions of attitudes can change? If functions of attitudes are really as important as we think in determining behaviour, how can we predict the way these functions vary? In the previous chapter we assumed that attitudes' functions are flexible and that they could be experimentally manipulated. We succeeded in changing participants motivations for ingroup identification. However, manipulation checks showed that this change was not as strong as hoped. There is the impression that our manipulation encountered some resistance, as if there were a more stable core of the functional characteristics that we did not reach. In the study presented here, therefore, we decided to take a closer look at the temporal aspect of identification functions in a longitudinal study.

If we consider Moreland and Levine's (1989) model of group socialization, we can make some more specific predictions about how motivations of ingroup identification vary. These authors, although not explicitly interested in the concept of functions of social identification, provide a theoretical model. The model includes ideas about individuals' and groups' needs for identification. Individual needs for socialization are seemingly parallel to what we refer to when we speak of functions of social identification. We say that a social identification attitude can serve a specific function, meaning that its valency and expression is motivated by an individual need. A need for self expression, for instance, is referred to as a self expressive attitude function.

In their model, Moreland and Levine describe five sequential stages in the process of group socialization: investigation, socialization, maintenance, resocialization and remembrance. A transition between the different stages occurs when the level of commitment reaches a certain threshold, and the level of commitment depends on the evaluation that the group and the individuals reach of each other. At every stage, the evaluation process has different characteristics but it always implies the consideration of the individuals' and the groups' needs or goals. For instance, "during investigation, the group engage in recruitment, looking for people who can contribute to the achievement of group goals, while the individual engages in reconnaissance, looking for groups that can contribute to the satisfaction of personal needs" (Moreland & Levine, 1989, p. 145). Or "during socialization, the group attempts to change the individual so that he or she can contribute more to the achievement of the group goals, while the individual attempts to change the group so that it can better satisfy his or her personal needs". Also, "during maintenance, the group and the individual engage in role negotiation designed to find a specialized role for the individual that maximizes both

the satisfaction of his or her personal needs and the achievement of the group's goals" (ibid.).

What is suggested here is that individuals are satisfying a specific need when displaying a certain attitude. With respect to social identity, therefore, they identify with a group because this has a function that is personally important to them. On the other hand, a group can provide an answer only to specific needs, depending on its goals. A change in functions of identification could therefore be the result of the negotiation that a group and its members engage in different stages of the socialization process. In order to examine this process in more detail we decided to consider a kind of group that, for its specific nature, is particularly apt to longitudinal observation: a therapy group. This is because therapy groups are usually small (not more than 30 people); have a short life, as they exist for a few months and then dissolve; and meet at regular intervals or predetermined times.

Our goal in this study is to observe the changes that occur in the functions of ingroup identification reported by group members at different times in the socialization process. Looking at one side of the model proposed by Moreland and Levine, we expect that, if individuals undertake an assimilation process on behalf of the group, their needs for identification will change, converging toward those proposed by the group. If this were the case, we would have at least a first general statement for predicting the functions of identification that are more likely to be displayed by group members. These would be, as socialization evolves, the ones dictated by the group goals and needs.

The first aim of this study is therefore to observe a specific therapeutic group over a short period of time that, nevertheless, covers almost all of the socialization stages described in Moreland and Levine's model. We will look at the changes in functions of

identification displayed by the ingroup members. We expect to find that the individuals' motivations to identify with the group will change over time and that these will tend to assimilate with the functions of identification proposed by the group.

The second aim of this study is to assess the relationship between the observed attitude "ingroup identification" and the other attitude of interest to this thesis: "intergroup differentiation". Besides observing the changes occurring over time in the display of such attitudes, as usual, we will be also interested in examining the association between the two variables. The rationale for our predictions will become clearer once we have described the centre where the research was conducted. However, we expect that changes in functions of identification displayed by the group will correspond to changes in the association between ingroup identification and ingroup favoritism. Based on the results of the previous study we predict that the functions of identification displayed by the group will become more and more self expressive in their nature. We also predict that the association between identification and bias will decrease over time depending on the more socially oriented nature of identification that this kind of group is supposed to transmit to its ingroup members.

2. Method

Participants in this study were 40 patients of an addiction recovery centre in Kent. This addiction recovery centre is a very well known centre for recovery that treats several different kinds of addiction. The philosophy embraced by the staff members at the centre is in line with the "twelve steps methodology", adopted in "Alcoholics Anonymous" groups (Alcoholics Anonymous, 1952). One of the main concepts that patients at the centre are faced with is the fact that addiction is a permanent disease,

something that will affect them permanently. People are encouraged to accept this social identity as a first step toward their recovery. Also the centre's clinical staff follow the view, supported by the findings of Stephenson, Maggi and Lefever (1997), that all addictions are psychologically similar. The concept of cross addiction is used to explain that alcoholism, drug use, eating disorders, compulsive help, etc. are just different ways in which the same addictive tendency manifests itself. Patients, therefore, are also warned against the possibility of developing cross addictions if they attempt to recover in a different way from the one proposed by the centre itself.

The specific recovery centre chosen for this research has particularly interesting and relevant characteristics: the group that every new patient joins is characterized by very strong and clear goals and aims, together with a well stated set of beliefs and norms. We felt that in this group it would be very easy to observe the extent to which newcomers assimilate with the group's needs as predicted by Moreland and Levine's model, demonstrating change in the functions of group identity. In other kinds groups, it is not always the case that group norms and goals are so clearly stated. So, although the process of evaluation and needs negotiation is assumed to be the same in every group, a therapy group of this kind is believed to be very apt for our study.

Patients in treatment spend a period of time ranging from 3 to 6 weeks at the centre, during which they participate in at least two group therapy sessions a day, plus specific personal treatment. Patients can start and leave the treatment at the centre at any time although leaves are assessed by the clinical staff. For this reason, the only way of testing patients over time at a regular interval was an individual administration. As part of their programme, patients are asked to answer to a series of standardized measures in the format of a questionnaire in the first week they join the centre. It is in the context of

this testing session that we first introduced our research to participants. All the measures relevant for this study were included in a questionnaire that patients were first asked to fill in during their first week at the centre. The second administration of the questionnaire took place after two or three weeks, depending on the total period of treatment of each patient. In the same way, the third administration of the questionnaire usually took place after an equivalent interval of time and a few days before patients were due to leave the centre. In general, the questionnaires were administered at week one, three and five of the treatment period. Despite the fact that extreme care was taken in order to obtain three repeated measures from every patient, this was possible for only 16 of the 40 subjects tested. For the other participants, only two repeated measures are available, as patients often leave the centre without notice before the end of their treatment. In general, leavers find the whole experience very difficult and at times traumatic.

The first measure included in the questionnaire was the same six item scale adapted from Brown et al. (1986) for the measurement of ingroup identification we used before. The ingroup concerned in the items was that of "addicts". We looked at this measure as an index of identification toward the broadest relevant category to participants. In the following two pages of the questionnaire functions of identification were measured via a 24 item scale, built and validated in previous research by the author (details of the items comprised in the full scale and in the shortened version used in this research are provided in the appendix). Participants had to answer the items of the scale considering their identification with the group of "patients at the recovery centre". A second measure of ingroup identification was obtained by adding to the scale of functions of identification, the six items used previously to measure ingroup identification (the

wording was adapted to the group of patients at the centre). We looked at this group as a subcategory of addicts as we were also interested in the relationship between identification with a category and with a subcategory group.

In the last section of the questionnaire participants found a semantic differential; ten bipolar scales, anchored by pairs of adjectives were used to evaluate five concepts: a "using addict", an "addict in recovery", a "non addict", the "recovery centre", and "another recovery centre" the participants might be familiar with. The five concepts of the semantic differential were intended to provide measures of ingroup favoritism for both ingroups for which we had measured identification. Identification with the category "addict" would be analyzed in relationship with measures of intergroup differentiation toward the outgroups of "non addicts" and "using addicts"; while identification with the subcategory of the centre group would be analyzed in relationship with the measure of intergroup differentiation toward the outgroup of other recovery centres. During their period at the centre, patients are constantly addressed as "addicts in recovery" and, at the same time, as belonging to the therapy group they are in. It therefore seemed natural to consider these two ingroups as the most salient for our participants. The other categories investigated by the semantic differential were consequently chosen as the natural counterparts of these ingroups. The possible other groups that addicts in recovery might think of are "non addicts" and "using addicts", by which we meant the group of people participants belonged to before coming to the centre, and comprising all the addicts that have not made the first step of wanting to recover from their addiction. Once more, discussions with the staff at the recovery centre reassured us that these are groups that are salient to the patients and that are constantly referred to during the group counseling sessions.

3. Results

3.1 Identification with the group of "addicts"

When patients are in recovery at the centre, they can identify themselves as members of the centre group (see next paragraph), but also they are being addressed as addicts and are intended to begin seeing themselves as addicts. It is therefore interesting to look at both ingroups if we want to have a clear understanding of the identification processes of this group of people.

The six items measuring identification with the group of <u>addicts</u> were used to compute a general score of ingroup identification at each of the three times of testing (alphas from .62 to .85). The levels of identification shown by participants toward this group are quite low[1]: $M_{time1} = 3.89$ (s.d. $= 1.12$); $M_{time2} = 4.34$ (s.d. $= .84$); and $M_{time3} = 4.22$ (s.d. $= 1.14$). However, ingroup identification seems to increase between time 1 and time 2. A repeated measures analysis of variance was performed, which showed a significant effect of time. Moreover, post hoc pairwise comparisons revealed that the origin of that effect is in the difference between time 1 and time 2 ($t(38) = -2.73$, $p< .01$), all other pairwise differences being nonsignificant.

We can therefore conclude that, as time goes by, subjects first increase their level of identification as addicts, and then stabilize around the value of four on a seven point scale, i.e. roughly at the mid point. This represents a level of ingroup identification that is significantly lower than most of the scores reported by people belonging to the various groups in other studies we have conducted (see chapter 6 and 7). For instance, the mean identification score reported by football supporters was M $= 5.6$ (s.d $= 1.3$); while trade unions showed a level of ingroup identification of M $= 5.3$ (s.d. $= 1.03$).

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[1] Means are expressed on a 7 point scale.

3.2 Identification with the "Centre Group"

Identification with the <u>centre group</u> was measured on a similar scale (alphas ranging

from .62 to .70). Respondents reported a higher level of identification with this group:

M_{time1} = 5.56 (s.d. = .96); M_{time2} = 5.66 (s.d. = .87) and M_{time3} = 5.57 (s.d. =.87). A

repeated measures analysis of variance revealed no significant effect of time on ingroup

identification ($F(2,30)$ = .62, n.s.). Also, respondents constantly reported a lower level

of identification with the category of "addicts" compared to the subcategory of the

"Centre group"; the difference between the two identification measures is significant at

each testing time (time1 $t(38)$ = 8.03, p< .001; time2 $t(38)$ = 9.29, p<.001; and time3

$t(15)$ = 5.12, p<.001). However, while participants reported an increased level of

identification with the category (addicts), they did not change the level of identification

with the subcategory (centre group).

In analyzing the different aspects of group identification in this group, it is also

interesting to look at the relationship between identification as a member of the centre

and identification as an addict. One might expect the two measures to be positively

correlated. Results instead show that the two measures are not correlated at time 1, r =

.22, p<.16 (N = 39); but are significantly correlated at time 2, r.= .47, p< .003 (N = 39).

Clearly, something changes between these two testing times, and the representation of

participants' feelings of identification with the two categories start overlapping;

presumably the two groups become psychologically more similar as time passes.

As mentioned earlier, data for time 3 administration are available only for 16 people.

We therefore consider it more appropriate, from now on, to report results concerning

this time observation only when they are of particular interest, given that any discussion

of them has to be moderated by considerations about the very small sample size.

3.3 Functions of ingroup identification with the "Centre group"

In order to investigate the nature and assess the importance of the different functions of identification with the Centre group, measured with the 24 items comprising the scale, ideally we should perform a factor analysis. However, this is not possible due to the small sample size of this study. Repeated attempts to conduct analyses of this kind had yielded results that were very difficult to interpret and that, in any case did not replicate the factorial structure emerged in previous studies, nor the theoretical structure of the scale. Nevertheless, even though it is not possible to statistically reduce the scale of identification functions to a smaller number of factors on statistical grounds, it is still possible to operate such a reduction and to justify it theoretically. We can therefore divide the scale in subcomponents on the basis of its original empirical and theoretical structure. Items with similar wordings and meanings were averaged. Also, because we originally designed the scale we can be sure of which items were meant to measure which function. If we do that, we find at least six concepts that are expressed by more than one item and that represent functions of identification. In Table 8.1 it is possible to see the content of the items that express the same function, their content and their reliability coefficients[2].

What we obtain are six possible functions of identification representing: the reciprocal help that ingroup members give each other, a sense of collectivism, self insight and self confidence, interpersonal comparison, the material rewards obtained by ingroup members, and a relational orientation.

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[2] Once more, the size of the reliability coefficients has to be interpreted taking account of the small sample size.

Table 8.1 Content of the items and the functions they represent, together with their reliability coefficients at the three testing times
* These items have been reverse coded

Items Content	Function	Reliability Coefficients At Time 1 Time 2 Time 3
1. I can help others by staying I this group 10. In this group we do what we can to help each other 14. As a member of this group I feel useless* 17. Being a member of this group gives me an opportunity to do something for its members	Reciprocal Help	$\alpha =.69$ $\alpha =.77$ $\alpha =.70$
2. In this group we do not work together very well* 8. This group does not give me a sense of belonging* 11. I do not enjoy myself very much with people in this group* 21. There is a sense of community and unity in this group 25. Working with others in this group is more trouble than it is worth	Collectivism	$\alpha = .65$ $\alpha =.54$ $\alpha =.53$
3. Other members of this group do not really help me to understand myself better* 6. Others in this group do not help me to feel good about myself* 15. I feel more self confident as a result of belonging to this group 32. I find it difficult to express my feelings to others in this group	Self Insight And Self Confidence	$\alpha = .65$ $\alpha =.69$ $\alpha =.32$
9. I get so many material rewards in this group that it is worth staying 12. I would be better off materially if I didn't belong to this group* 19. Some of the material benefits I have come from the fact that I am a member of this group	Rewards	$\alpha = .65$ $\alpha =.61$ $\alpha =.62$
13. To judge this group it is not necessary to make comparisons with other groups* 20. I am not really interested to see if this group does well or badly in comparison to others* 27. It is not possible to assess this group's achievements without comparing them with those of other groups 28. This group defines itself in comparison to other groups 31. I often compare this group with other groups	Relational	$\alpha = .43$ $\alpha =.55$ $\alpha =.22$
5. Some others in this group are doing worse than I am 29. I am doing better than some others in this group	Ingroup Comparison	$\alpha = .43$ $\alpha =.85$ $\alpha =.88$

Our hypothesis regarding the change of functions of identification over time would

predict patients to show a significant increase in the display of the first three functions.

These are the ones that best represent the philosophy of the centre and therefore the

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identification functions of the ingroup. On the other hand, we would also expect patients to show a decrease in the importance assigned to the last three functions, as they are not the ones that the ingroup advocates. If we look at Table 8.2, wherein we tested the difference between time 1 and time2 for each of the identification functions, we see that the mean scores of the functions "help", "self insight and confidence" and "relational" change over time consistent with our hypothesis. The more ingroup members are part of this group, the more they consider it important to identify with it because the group serves reciprocal help and self enhancing functions. On the other hand, the more they are part of this group, the less patients identify with it because they need to compare themselves with others. So, altogether, given that the philosophy of the recovery centre is that of helping people to accept their problems with addiction; to feel like they are not the only ones suffering from this "illness"; to like themselves for what they are, then we can easily say that treatment causes people to endorse this perspective more and more. The structure of identification functions converges toward those needs that the group can serve. In this sense our hypothesis is confirmed.

3.4 Ingroup bias and identification with the addicts group and the centre group

In this study we obtained three measures of intergroup bias: the first two comparing the evaluations of the ingroup of "addicts" to the outgroups of "non addicts" and "using addicts"; and the third comparing the evaluations of the ingroup at "the centre" and the outgroup of "another recovery centre". All the measures of ingroup bias are obtained in the conventional way by subtracting the evaluation of the relevant outgroup from the evaluation of the relevant ingroup. For every measure, the ten difference scores are

averaged to obtain one general measure; with reliability coefficients ranging from .52 to
.91.

Table 8.2 Means and standard deviations of the functions of identification at time 1 and time 2
(means not sharing a subscript are significantly different at p <.05)

Function	Time 1	Time 2
Reciprocal Help	5.58a (1.11)	5.92b (1.05)
Collectivism	5.59a (.99)	5.68a (.89)
Self Insight And Confidence	4.89a (1.18)	5.46b (1.19)
Rewards	3.98a (1.59)	4.32a (1.76)
Relational	3.02a (.92)	2.80b (.99)
Ingroup Comparison	4.18a (1.64)	4.15a (1.72)

In table 8.3 are shown the mean scores of the three measures of bias at time 1 and time

2. As can be seen, there was a positive (significantly different from 0) ingroup bias for

all but one measures at time 1 and for all of the three measures at time 2. In order to test

the differences between these mean scores, a 2 x 3 fully within subjects analysis of

variance was performed, using "time" as factor 1 and "kind of ingroup bias" as factor 2.

The analysis revealed the presence of a nonsignificant main effect of time ($F(1,19) =$ .266, p< .612) a significant main effect of kind of bias ($F(2,38) = 16.381$, p< .001) and a marginally significant interaction effect (F (2,38) = 3.132, p< .055). Following the marginally significant interaction, we therefore performed simple main effects analyses which revealed a significant simple main effect of time within bias measured against "non addicts" (the other two simple main effects of time are non significant).

Table 8.3 Means scores of the three measures of ingroup bias at time 1 and time 2

(* indicate bias is significantly different from zero, p<.05; means within a column or row not sharing a subscript are significantly different, p<.05)

Bias		Time 1	Time 2
Ingroup	Outgroup		
Addicts	Non Addicts	.29a (1.24)	.88d* (1.17)
Addicts	Using Addict	2.56b* (2.31)	2.98b* (1.51)
Center	Other Center	1.69b* (1.51)	1.04c* (1.93)

Also, we found a significant main effect of kind of bias within time 1 ($F(40, 2) = 6.857$, p< .003) and within time 2 ($F(52, 2) = 20.918$, p< .001). What we can conclude is that patients show a stronger level of ingroup bias toward Using Addicts than against Non Addicts at both time periods (post hoc analysis of the significant simple man effects of bias within time 1 and within time 2, revealed the difference between bias against Using Addict and Bias against Non Addicts being significant both time periods, t(32) = -6.34, p<.001 at time 1 and t(36) = -7.28 at time 2). Also patients showed the same level of

ingroup bias against Using Addicts and against Other Centres at time 1, but a stronger

level of bias against Using Addicts than against Other Centres at time 2 (from post hoc

analysis, t(23) = 1.24, n.s. at time 1 and t(26) = 5.43, p< .001 at time 2).

What about the relationship between identification (with addicts and the Centre group)

and the different measures of ingroup bias? Table 8.4 shows the correlation matrix

between measures of identification and bias at time 1 and time 2.

Table 8.4 Correlation matrix between measures of identification and ingroup bias at time 1 and time 2.

* significant at p<.05
** significant at p<.01

	Time 1					Time 2				
	Ide. Addict	Ide Centre	bias non addicts	bias using addicts	bias other centre	Ide. Addict	Ide Centre	bias non addicts	bias using addicts	bias other centre
Ide. Addict	-					-				
Ide Centre	.12	-				.39*	-			
bias non addicts	.23(*)	-.04	-			.12	-.25(*)	-		
bias using addicts	.15	-.06	.53**	-		.07	.39*	.18	-	
bias other centre	.03	.10	-.39	-.23	-	.20	.32	.05	.39*	-

In the highlighted box we see the correlations between measures of identification and

measures of bias. Figures 8.1 and 8.2 then, summarizes the results of path analyses

conducted using multiple regression analyses predicting the various measures of bias

from the measures of ingroup identification. Here we see that at time 1 none of the

regression paths reach significance, indicating that not only the feelings of identification

with the two groups (Addicts group and Centre group) are distinct, but also that there is

only a weak relationship between ingroup identification (addict) and ingroup binas (non

addicts) and none at all with the Centre identification.

Figure 8.1 Results of the path analysis at time 1

* p< .06
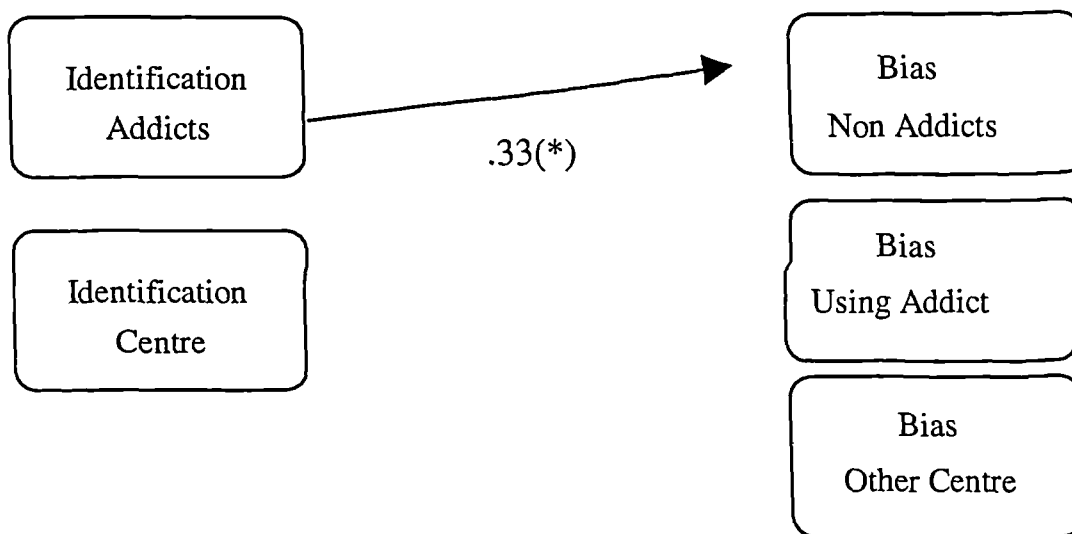
Figure 8.2 Results of the path analysis at time 2
* p <.05
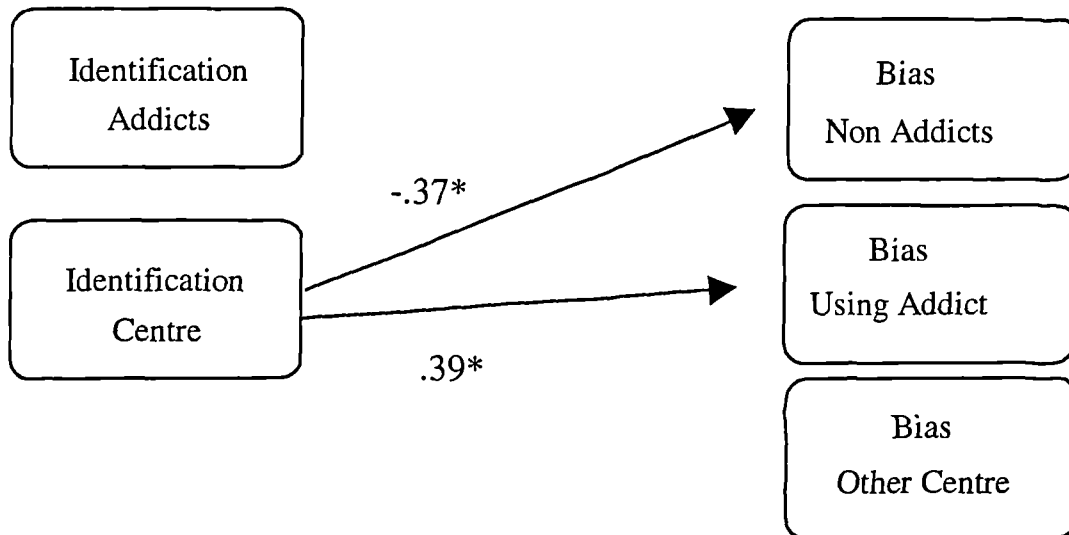
While this could be expected if we consider that identification with the centre group does not serve any materialistic or self serving functions (and therefore there is no motivation to show ingroup bias as a consequence of ingroup identification),we cannot say the same for the ingroup of addicts, as we do not know what the functions of identification which this group are.

On the other hand, at time 2, when identification with the group of Addicts becomes stronger and, at the same time, the functions of identification with the Centre group are polarized to show a stronger collectivist, self insight and self confidence motivation, we see that identification with the Centre group (with all its stronger socio-emotional motivations) predicts the bias against the outgroup of non addicts. The sign of the regression path, however, is negative (beta = -.37, p<05), meaning that the more the

subjects are identified with the therapy group, the less they show discrimination against the outgroup of non addicts. At the same time, though, identification with the Centre group at time 2 is predictive of ingroup bias against the outgroup of Using Addicts (beta = .39, p<.03).

4. Discussion

In this study we explored the temporal aspects of functions of identification with a specific group: a therapy group for the recovery of addicted patients. Our specific interest was in testing the hypothesis that during the socialization process that brings a new member to become fully part of a group, ingroup members tend to be assimilated by the group. As a part of this assimilation process ingroup members give increasing importance to those personal needs that can be answered by the group. We considered it important to collect information about the temporal nature of the needs structure of ingroup members, because these needs are the basis for the motivational aspect of ingroup identification. In this thesis we have been exploring many aspects of the motivations that drive people to identify with a social group, concepts that we have expressed with the term functions of ingroup identification. And one of the questions that we are able to answer after this study is: how stable are functions of identification for ingroup members ? The suggestions coming from research on functions of attitudes (Herek, 1986) and group socialization (Moreland and Levine, 1989) are that motivations to identification are very flexible and subject to continuous change and adjustment. Our experience is that it is to a certain extent possible to experimentally manipulate functions of identification (see chapter 7) and that these show a certain degree of change over time (this study). However, results from this study show that

whereas the content of the needs shown by group members when they identify changes only slightly, the relative emphasis on functions changes significantly. Perhaps people who decide to stay in a group do so because they find their expectations confirmed or because they are satisfied by what they get from the group. As their socialization process proceeds, they increasingly endorse the position of the group and their motivations to identify become consistent with the group's goals and needs. In this study the mean score of the identification functions representing concepts important to the group becomes higher over time, while the mean score of at least one of the functions less central to the group goals decreases.

From these results, we concluded that functions of attitudes can change in some circumstances, but our experience is that certain attitudes can only serve certain functions; that is identification with a specific group can only satisfy a specific set of needs and not others. The degree of change we observed confirms that, in the negotiation process that constitutes part of the group socialization process, we can expect newcomers to converge and assimilate to the needs and goals of the group.

What can we learn from this with respect to intergroup differentiation and the understanding of its relationship with ingroup identification? It seems certain kinds of groups are more likely than others to display ingroup bias as a consequence of ingroup identification. In order to understand which kind of groups will be more likely to show ingroup favoritism as a consequence of simply identifying with the group, we have to consider the functions that identification has for that group. Moreover, the more group members are at a late socialization stage in the group, the more we can expect them to be integrated with the motivations for identification set out by the group itself.

As far as ingroup bias in this study is concerned, we saw that outgroup derogation was directed mainly toward the group of Using Addicts, which represents everything that the patients in recovery fear and consider bad. It is therefore not surprising to find such high levels of ingroup favouritism. But, once again, we are left with the unanswered question of what is it that determines such ingroup bias if not ingroup identification (time 1).

At time 2 then, we find that Identification with the Centre group does predict ingroup bias against Non Addicts and Using Addicts. Although not in line with the predictions derived from chapter 7 (strong socio-emotional functions of identification should not lead to an association between ingroup identification and ingroup bias), This result can, however, be understood and interpreted in the light of what was said before about the kind of philosophy adopted by the recovery centre. What the patients mainly learn at the centre is that others, "non addicts", are not to blame for one's own problems, weaknesses, or illness. Patients are instead encouraged to deal with their own problems as addicts and to appreciate and learn from people who do not suffer from this condition. This clearly explains the association between identification with the centre and the positive appreciation of non addicts at time 2. Once people have polarized their identification motivations to fully embrace the ones proposed by the centre the link grows between identification and a positive evaluation of a group that they are encouraged to appreciate and emulate. At the same time, patients are encouraged to abandon their self commiserating view: crying on their own and blaming themselves is not going to help them. Being in recovery, for them, means taking distances from

"using addicts" and their dislike for such group is now justified by their identity as recovering addicts.

Another result of interest concerns the levels of identification with two groups to which participants in this study could belong, one constituting the broader level of categorization (Addicts), the other the subgroup level of categorization (centre group). We should not necessarily expect group members to show the same level of identification with two groups representing different levels of social categorization. Our results confirm some of the assumptions of self categorization theory. The observed difference in the mean level of identification with the categorical and subcategorical group (participants identify significantly more with the Centre /subcategory group than with the addicts/category group) shows that one level of categorization is more meaningful than others, and that, despite the similarity between the two, one level is usually preferred over the other as more apt to define and categorize the identity of group members (Turner at al. 1987).

However, we also found that the correlation between the level of ingroup identification with the two stimulus groups varies. This relationship is subject to change and, in this case, while at the beginning of the socialization process, categorical (addicts) and subcategorical (centre group) identifications are relatively independent concepts, later they become reliably associated. We could interpret this fact saying that when at first people start categorizing themselves as belonging to a certain group, the fact of having a double level identification is confusing and therefore the two categorical levels are kept separate. But as time passes and group members gain more experience about their subcategorical group, they also start noticing and being able to deal with the shared

aspects of the subcategorical and categorical levels. The awareness of the similarity of the two groups, therefore produces the association we observe.

Altogether, the results of the present study provide interesting insight into the temporal nature of functions of identification and its relationship to measures of ingroup favouritism. At the same time they also explored the reality of nested identities in a group where the stigmatized categorical identification can probably be overcome by identifying more strongly with a subcategorical group. Whether the conclusions we draw from this study are stable and generalizable has to be decided by future investigation. For the time being, its contribution rests in the assessment of functions of identification as a more stable concept than that projected by research on functions of attitudes. Another issue that still needs investigation is the idea that the content of the meaning of identification determines the association between ingroup identification and intergroup behaviours. In this study we found partial support for this hypothesis, in the negative correlation between ingroup identification serving socially oriented functions and ingroup bias; but we also found evidence in the opposite direction, as identification with the same group is also positively related to bias against a different outgroup. So, despite some progress in the investigation of the relationship between ingroup identification and ingroup bias, more research is needed in order to clarify these contrasting results.

Chapter 9

Conclusions

In this chapter we will outline the research questions that motivated the different studies included in the thesis and we will summarize the main findings of each study. After drawing conclusions, we will make suggestions for future research in the light of the results we obtained.

1. Research questions and empirical answers

All the work conducted and the studies described in the chapters of this thesis revolve around one main question:

When can we predict ingroup bias from ingroup identification ?

Social Identity Theory (Tajfel & Turner, 1979) predicts that a strong feeling of ingroup identification will be associated with the display of ingroup favouritism, an innocuous but potentially threatening facet of intergroup discrimination and social prejudice. But, as often happens in social research, after ten and more years of research conducted to test this hypothesis, the evidence in its support was rather mixed.

In 1990, Hinkle and Brown tried to make sense of the contrasting results by making different predictions for the identification/bias association in social groups that were either predominantly collectivist or individualist, and relationally or autonomously oriented. It was their proposal to consider group diversity that led us to our next two research questions:

Can we understand the variations of the identification/bias association by looking at different kinds of groups ?

and:

For which kinds of groups does ingroup identification lead to ingroup favouritism?

Our first step into the investigation of the relationship between group identification and ingroup bias was a meta-analysis where we examined all available studies testing the Hinkle and Brown model. To what extent was the model successful in identifying kinds of group with different levels of identification/bias correlations ? First the meta-analysis showed that, in the 15 studies examined, collectivism and relational orientation are significant predictors of the correlation under study. We concluded therefore that it was indeed meaningful to create a group taxonomy on the basis of these two group variables. The Hinkle and Brown model is able to explain at least some of the variation in the identification/bias correlation.

However, two other variables interacted with collectivism and relational orientation in predicting that correlation (identification/bias). Combining the results of 15 studies, we

found that the predictions of the Hinkle and Brown model were met even more strongly for those groups whose status was equal to the outgroup examined; and also for those groups that had the characteristics of a "group" rather than of a "social category". We concluded that various group characteristics are important determinants of whether or not identification will predict ingroup bias, and that therefore SIT predictions might have to be restricted to those kinds of groups.

Not completely satisfied with the results of a retrospective procedure such as meta-analysis, we decided to see whether its findings could be replicated, providing some reassurance in the stability of this findings. In a follow up study we tried to replicate the findings of the meta-analysis by creating four experimental groups, each characterized by a combination of the two extra predictors ("relative status" of the groups and level of "groupness") which had emerged from the meta-analysis. Testing the validity of the Hinkle and Brown model in the four experimental conditions, we found a stronger fit to the predictions of the model in the "equal" relative status condition, but –contrary to predictions - also in the "category" condition rather than in the "group" condition[1]. In general, the results of the meta-analysis were only partially replicated. The four group characteristics considered - collectivism, relational orientation, relative status of ingroup and outgroup and level of "groupness"- are important aspects to be taken into consideration when predicting ingroup bias from ingroup identification.

Our questions thus found some answer in the results of the studies conducted. However, we realized that the characteristics we used to differentiate social groups

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[1] A detailed interpretation of this apparently contradictory result is given in chapter 4, where the study is described in detail.

students, football supporters, trade unionists and Japanese university students. Our results, consistent with what Deaux (1997) and Torres (1996) found, showed significant differences in the functions of identification that characterized the groups.

For the group of psychology university students, group identification meant an opportunity for practising interpersonal skills and to get to know more about themselves and the way they react to others. In the football supporters group, in contrast, ingroup identification meant to be part of a collectivity, to share common interests with a lot of people and to feel supported in the display of intergroup behaviours considered inappropriate by other people. For the members of a trade union, on the other hand, being part of this group mainly means to have a chance to obtain material benefits. People are in this group because they can help others, and by doing so they also help themselves in the long run, and gain personal rewards.

These first results provided us with a baseline description of a group taxonomy based on the various motivations associated with group identification. This, of course, was only a first step toward a more complex goal, that of using differences in functions of identification to try to explain the variation in the association between ingroup identification and ingroup bias. But in those four correlational studies and in a following experimental study, we also asked ourselves:

What is the link between kinds of groups, characterized by specific functions of identification, and the association we are examining (identification/bias)?

(collectivism/individualism, relational/autonomous, relative group status and level of "groupness") only partially described different kinds of groups. So far we had concentrated only on characteristics that described groups mainly in terms of their psychological relationship with other groups, for instance the extent to which the two groups compare to each other, or their relative status position. After looking closely at the assumptions of SIT we realized that we and others had ignored the motivations underlying individuals' identification with social groups. Reflecting on this more intragroup characteristic led us to our next research questions:

Is self esteem really the only motivation that drives ingroup members' identification?

And:

Can we conceive of a group taxonomy based on motivations for, or functions of, ingroup identification?

SIT states that group members are motivated to identify with a group because of a need for self esteem. Belonging to a group has the primary function of providing positive self esteem and, if this is not the case, unsatisfied ingroup members are likely to leave the group if possible (although, of course, there are many cases when they don't) or to use some creative strategy to restore their positive group identity.

In our next study, we tested this assumption, which had been criticized already by others (see Abrams & Hogg, 1988). We investigated the functions that identification can serve, other than self esteem, in four different groups: British university psychology

students, football supporters, trade unionists and Japanese university students. Our results, consistent with what Deaux (1997) and Torres (1996) found, showed significant differences in the functions of identification that characterized the groups.

For the group of psychology university students, group identification meant an opportunity for practising interpersonal skills and to get to know more about themselves and the way they react to others. In the football supporters group, in contrast, ingroup identification meant to be part of a collectivity, to share common interests with a lot of people and to feel supported in the display of intergroup behaviours considered inappropriate by other people. For the members of a trade union, on the other hand, being part of this group mainly means to have a chance to obtain material benefits. People are in this group because they can help others, and by doing so they also help themselves in the long run, and gain personal rewards.

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What is the link between kinds of groups, characterized by specific functions of identification, and the association we are examining (identification/bias)?

Reflecting the different functions of identification, in the four groups we examined, we observed variations in strengths of correlation between identification and bias. Specifically, the highest correlation was observed for the trade unionists group. Here, it is suggested, a feeling of group identification that is motivated by materialistic interests, is consequently linked to the display of ingroup favouritism.

These results showed that, not only are social groups characterized by different identification motivations, but also that these differences are reflected in the association between ingroup identification and ingroup bias. We can therefore conclude that, besides the more intergroup characteristics which emerged in the previous studies. Self oriented identification motives, in particular those motives based more on materialistic advantage are found to be another aspect that limits the validity of SIT.

All this led us to believe that there is an important link between functions of identification and the kind of behaviours caused by ingroup identification itself. Ingroup members motivated by self interest should display strong associations between identification and bias; while group members whose identification has a self expressive meaning should display a stronger correlation between identification and cooperative behaviours. The results of an experimental study, where we manipulated functions of ingroup identification, supported only the first part of our hypothesis.

We suppose that asymmetries concerning different psychological processes with respect to prosocial and antisocial behaviours explain these results (as proposed by Mummendey & Otten, 1998). Thus whereas we are able to predict intergroup behaviours of an antisocial nature on the basis of identification processes, the same might not be true for prosocial behaviours. The suggestion is that the two classes of behaviours are not simply the opposite of each other, but rather separate and

psychologically distinct concepts. If the functions associated with a particular group dictate the achievement of distinctiveness through the delivery of a negative outcome to the outgroup (as opposed to the delivery of a positive outcome) then levels of ingroup identification can predict the degree of intergroup bias. Thus the results of these studies established a conceptual link between functions of identification and their impact on the relationship identification/bias. Now we had one more issue to investigate:

What is the temporal nature of identification functions?

In our last study explored in more detail temporal variations in functions of identification. From a longitudinal observation of a group of patients in recovery from an addiction problem, it emerged that the motivations that drive group identification are relatively stable over time but not completely so. We observed that, when people join a group like this, they already have a good understanding of the personal needs that can be answered by the group. Their initial motivation is already in line with the goals of the group itself. Therefore, the small change in the functions of identification that we observe is in reality a shift toward an slightly stronger version of the original motivation.

Some theoretical contributions to the analysis of the functions of attitudes (Herek, 1986) described these as very flexible and unstable constructs, which can be influenced by personal and contextual variables. On the other hand, Moreland and Levine (1989), in a more indirect examination of the motivations to group identification, predicted an assimilation and accommodation process between individual needs and group goals that characterizes, to some extent, all groups and that thus produces a much more stable set

of functions of identification. Our results confirmed this latter position since we observed that the original motivations of the group to identify tend to converge and polarize toward the group's goals.

2. Further considerations

Group differences have been ignored for a long time by intergroup relations researchers. Intergroup theories generally have failed to acknowledge that not every group is the same and that it may be misleading to make similar predictions for all kinds of groups. Encouraged by the proposals of Hinkle and Brown and following supporting evidence from Deaux (1995) and Torres (1996), _we demonstrated that the differences that_ characterize various social groups do have a strong impact in shaping and constructing the intergroup context. Any analysis concerning the interaction between groups must take into consideration the nature of the groups themselves before making strict predictions about their attitudes and behaviours.

The first conclusion emerging from our studies is therefore the realization that, by considering group differences, we can explain one of the controversial aspects of SIT. In the light of the results reported in this thesis, we strongly suggest that future applications of this theory should be preceded by an examination of the kind of groups involved.

The psychological processes regulating intergroup relations as described by SIT require that group members strongly identify with the group under analysis, and that they make use of social comparison with a relevant group as a source of evaluation. Our results suggest that these characteristics are more likely to be present in groups that are: collectivist, relationally oriented, of equal status relative to the outgroup, with a high

level category identification (in the sense of group identity attachment as described by Prentice et al, 1994), and where members are motivated to identify with the group because of its potential for providing material benefits. If all this is taken into consideration, then we can expect the predictions of SIT to be valid and we can expect ingroup identification to be strongly associated with the display of ingroup bias.

The important contribution of our results is the idea that the analysis of the kinds of groups that will meet SIT's predictions should also consider the functions identification has for members. In this respect, we can say that social identification does not mean the same thing to everyone or to every group. Careful consideration of the motivations that drive social identity is therefore necessary if we wish to understand the links between social identification and intergroup behaviour. We have known for a long time that ingroup identification is one of the predictors of biased intergroup attitudes. In our research we clarified the nature of the relationship between these two variables.

3. The actual state of Social Identity Theory

In psychology, the term identification can be used to express many different ideas, and at times we might also be advised not to try to define it altogether, as: "the concept of identity is as indispensable as it is unclear. This is why no attempt will be made to define it and we shall keep it in a zone of shaded obscurity" (Moscovici & Paicheler, 1978, p. 252). Nevertheless, SIT has, of course, created a lot of interest in the area of identification and a considerable amount of research linking social identity to many aspects of social behaviour (see Chapter 1 for a summary of the areas in which social identity research has developed).

Much of this research has focused around the specific definition of the concept of identification, the one offered by Tajfel (1981) in his conceptualization of Social Identity Theory. However, despite his efforts in providing a clarification of what social identification meant, Tajfel's definition as well, did not manage to give a completely clear direction to the research that followed.

In our studies, we concentrated on one of the aspects considered as problematic for social identity theory, because of the contrasting empirical evidence that the identification/bias association has received. However, this is not the only hypothesis derived from the original assumptions of SIT to have generated numerous but at times contradicting research results. In brief one might observe that, in the twenty years since the introduction of Social Identity Theory, there is a vast, and at times chaotic, amount of research. Several debates regarding alleged misinterpretations and wrongdoings have flared up (Robinson, 1996).

But this is not all bad news, we think. Researchers are actually becoming aware of this chaotic, and at times indiscriminate, use of the identification construct in predicting intergroup behaviour. This is evident in some of the very latest contributions of social psychologists studying social identification, such as Ellemers, Kortekaas and Ouwerkerk (1999), Klink, Mummendey, Mielke, and Blanz (in press), Jackson and Smith (1999), Deaux, Reid, Mizrahi and Cotting (1998), Brown and Capozza (in press). All of this research, developed almost completely independently, is drawing attention to the composite nature of social identification. Social psychologists, rather than putting aside a concept like social identification, which has grown so big and complex, are now trying to bring it back to a more clear, useful and effective construct. This, they think,

will explain and eliminate many of the contradictions we would otherwise encounter in this research domain.

In practical terms, this reshaping of social identification can mean to individuate components of social identification. For instance, Ellemers et al. (1999), suggest that the operationalizations and scales generally used to measure social identification are not comparable because they often focus on one of the three different components that Tajfel himself distinguished in his definition (cognitive, evaluative and emotional). According to Ellemers et al., if we take into consideration these three different identification components, we can establish specific relationships between each component and different aspects of intergroup behaviour. At the same time, it would be possible to understand that much of the conflicting evidence questioning the validity of the role of social identity is only apparently so, originating from the use of a unified scale to measure what are in reality different components of identification, each with different characteristics and effects on intergroup behaviour.

This partition of the construct of identification expresses the assumption that identification is not always the same in every circumstance. Sometimes group members put more emphasis on their cognitive identification, giving more importance to self categorization processes and leading to a stronger association between identification (in its cognitive configuration) and other more cognitive aspects of the intergroup relation (e.g. the perception of group homogeneity). Other times identification for the same group or for a different group could mainly mean an evaluation of the ingroup, in which case self esteem processes become important and the group's positiveness is protected via intergroup differentiation.

Our ideas are at least consistent with what Ellemers et al. (1999) suggested. However, we interpreted these differences in the meanings of identification as resting in the various functions that group identification can serve, while Ellemers and colleagues concentrated on the differentiation between cognitive, evaluative and emotional components of identification. While the underlying idea remains the same: that identification can mean different things and that we need to specify what these are before making specific predictions, our approach focuses more on a group analysis, on the meaning that the group has for its members. Other approaches instead concentrate more on psychometric aspects of identification from a more individualistic point of view. Probably more similar to our approach is the research conducted by Jetten, Spears and Manstead (1997) who explained differences in the identification-bias correlation considering the different group norms. The authors suggest that the observed correlation will be positive only when the norm of the group encourages competitive intergroup relations, as in political settings. Here as well we see that the emphasis is on group aspects rather than individual measurement problems.

Of the same opinion are Klink et al. (in press), who identify roughly the same dimensions as Ellemers et al., including a cognitive and evaluative component, but also substituted the emotional component with a conative one, matching even more closely the 'tripartite' definition of attitude (see e.g. Allport, 1950). Their results support the view of a multicomponent nature of social identification, and also validate the hypothesis of a different impact of the single components on behaviours of identity strategy management (individual vs. group strategies).

Similarly, Jackson and Smith (1999) conceive of social identification as comprising three dimensions, which are: the perception of the intergroup context ("the extent to

which identification with an ingroup is defined, in part, by the intergroup situation"

p.121) , the attraction to the ingroup (group cohesion), and interdependency beliefs

(allocentrism). The authors came to this conclusion after having factor analyzed many

of the scales reported in the literature as measures of group identification (e.g. Luthanen

& Crocker's (1992) collective self esteem scale, Karasawa's (1991) identification scale;

Brown et al.'s (1986) group identification scale; Hinkle et al.'s (1989) group

identification scale; Kelly's (1988) group identification scale, etc.). Results of

secondary factor analyses showed that each of the scales considered in the study

actually focused on one of these three aspects of group identification: group attraction,

collective self esteem and allocentrism. Consequently the authors argue that the factors

"group attraction" and "collective self esteem" could be interpreted as expressing

respectively a secure and insecure group identification (see Jackson & Smith, 1999, for

a more detailed justification). Group members were then shown to regulate their

intergroup behaviour on the basis of one of these two kinds of identities (secure vs.

insecure). Results showed that a secure group identification was negatively associated

with ingroup biased attitudes but positively associated with feelings of ingroup pride.

On the other hand an insecure group identity was strongly and positively associated

with ingroup bias and also with feelings of ingroup pride. Once more empirical

discrepancies in the literature on social identity theory are believed to be illusory,

created by the use of wrong or non-comparable levels of measurement when assessing

group identification. Similarly to Ellemers et al.'s conceptualization of identification,

Jackson and Smith's distinction between secure and insecure identity can be considered

as an attempt to specify the meaning of identification in different groups (or in the same

group at different times or for different individuals).

It is therefore our opinion that social identity theory is presently undergoing a well-needed phase of redefinition, during which its boundaries are being specified and in which its complexity is being acknowledged and investigated in relation to different aspects of intergroup relations. What the result of this clarification process will be, it is too early to say. But it is our opinion that social identity will come out of it better defined and therefore stronger in its predictive power.

A danger, however, that is in moving toward these contributions we run the risk of producing as much confusion as exists, if at a different level of analysis. Thus while we welcome attempts to analyze the concept of identification into more well defined components, we should be wary of producing equally confusing large numbers of possible meanings of identification. We are already observing research developing in different directions to interpret *the same question* – *i.e.* what is the meaning of identification in the group under study. Future research should test the validity of these different solutions, discard the ones that appear unsatisfactory, and move on toward the investigation of what it is that determines one of the other meaning. One possibility for this endeavour is to concentrate on examining the impact of these different meanings of identification on intergroup relations. The best solution should be the best predictor of intergroup behaviour.

4. Suggestions for future research

To sum up the previous considerations, we believe that future research should continue in the direction of more carefully defining and clarifying the construct of identification itself. But, at the same time, we believe there is the need to find direct and concrete application for the classifications proposed. In the vast amount of research produced

under the domain of Social Identity Theory not much of it has provided useful applications in everyday life. What we would like to see is, therefore, more research conducted on applied settings, like education or industry.

Proceeding in this direction our future interests of research concern the application of the classification proposed by Ellemers and colleagues in an educational setting. Our plan is to validate the identification structure proposed by these authors (cognitive, emotional, and evaluative components) in comparison with our more functional approach in a real group like that of a secondary school. There is no reason why we should not expect to replicate the findings discussed here, but our aim is to assess the validity of the different classifications. At the same time, we plan to observe the natural evolution of identification. Again, with the purpose of investigating the stability of the components of identification.

Once the nature of the meaning of identification with the school group is established, we could then concentrate on the effect of such group identification. A very interesting variable to observe would be the level of performance displayed by group members as a consequence of their identification. Basically we would like to investigate the extent to which group identification, in some of its possible meanings, affects the level of school performance. Of course we can expect many other personal (I.Q., attributional style, etc.) or social variables (e.g. family, socio-economic and educational background) to affect certain aspects of school performance in a more direct way. But we are also interested to see whether for instance the emotional component of identification, referred to as group commitment, has any role in predicting some aspects of school performance, like individual motivation to succeed, once these variables are held constant.

Similar research could be conducted in organizational settings, where the first interest

of the organization, as a group, is that of maximizing production and therefore any

additional contribution in this direction is welcomed. In this context, as in education, the

research interest in studying social-identity variables is still limited. However, we

believe that this trend of research is worth developing and that we could make more use

of the theoretical knowledge we have accumulated.

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APPENDICES

APPENDIX A

Meta-analysis follow-up study

Caro studente,
ti ringraziamo fin dall'inizio per la tua collaborazione e ti chiediamo di riempire questo questionario che e' parte di una ricerca condotta congiuntamente dall'Universita' di Padova e dall'Universita' di Canterbury (Inghilterra). Scopo di questa ricerca e' investigare i diversi sentimenti e opinioni che caratterizzano varie esperienze di gruppo.

Pertanto, ti preghiamo di rispondere alle domande contenute in questo questionario in tutta sincerita', seguendo le istruzioni fornite nelle diverse sezioni.

Le tue risposte saranno analizzate congiuntamente a quelle fornite da tutti i tuoi colleghi presenti qui oggi. Ogni questionario sara' quindi completamente anonimo. Ti preghiamo di non confrontare le tue risposte con quelle dei tuoi colleghi, perche' non esistono risposte giuste o sbagliate, quello che conta in questo contesto sono le tue opinioni. Se avessi qualche domanda puoi semplicemente alzare una mano e chiedere spiegazione a uno dei ricercatori, senza disturbare i tuoi colleghi.

Grazie di nuovo per la tua collaborazione.

Eta':___

Sesso: M   F

Anno a cui sei iscritto:___

Indirizzo (se oltre il terzo anno):___

Citta' di residenza:___

Professione Madre:___

Professione Padre:___

Universita' di Padova
Dipartimento di Psicologia Generale

sono le tue reazioni a una situazione di gruppo in generale.

1. Lavoro meglio in gruppo che da solo

Disaccordo						Accordo
1	2	3	4	5	6	7

2. In genere e' importante comportarsi nel modo desiderato dalla propria famiglia

Disaccordo						Accordo
1	2	3	4	5	6	7

3. Se non si e' piu' in sintonia, e' meglio abbandonare i vecchi amici e cercarne di nuovi

Disaccordo						Accordo
1	2	3	4	5	6	7

4. Le idee dei miei colleghi di lavoro non mi influenzano molto

Disaccordo						Accordo
1	2	3	4	5	6	7

5. Quello che realizzo non e' solo il risultato dei miei sforzi, ma dipende anche dal contributo degli altri

Disaccordo						Accordo
1	2	3	4	5	6	7

6. Quando si risolve un problema personale da soli si ha un risultato migliore di quando ci si rivolge ad amici

Disaccordo						Accordo
1	2	3	4	5	6	7

7. E' importante mantenere l'accordo nel gruppo

Disaccordo						Accordo
1	2	3	4	5	6	7

8. Il successo di un mio amico, aumenta in un certo senso, la fiducia che ho in me stesso

Disaccordo						Accordo
1	2	3	4	5	6	7

9. Non e' sempre una buona idea seguire le decisioni del gruppo

Disaccordo						Accordo
1	2	3	4	5	6	7

10. Mi va bene mantenere stretti rapporti con i miei parenti se questo puo' contribuire al mio successo

Disaccordo						Accordo
1	2	3	4	5	6	7

11. E' in parte colpa mia se un membro del gruppo non riesce

Disaccordo						Accordo
1	2	3	4	5	6	7

12. Spesso i miei amici mi fanno cambiare idea

Disaccordo						Accordo
1	2	3	4	5	6	7

13. Di solito lavorare con altri da' piu' fastidi che vantaggi

Disaccordo						Accordo
1	2	3	4	5	6	7

14. Non e' importante che tra parenti si condividano gli stessi valori

Disaccordo						Accordo
1	2	3	4	5	6	7

15. Non traggo alcun vantaggio dal successo di altri membri del mio gruppo

Disaccordo						Accordo
1	2	3	4	5	6	7

Disaccordo 1 2 3 4 5 6 7 Accordo

25. Non sto male se all'interno del mio gruppo si sono create incomprensioni

Disaccordo 1 2 3 4 5 6 7 Accordo

26. Se il gruppo abbassa il mio rendimento, e' meglio lasciarlo e lavorare da soli

Disaccordo 1 2 3 4 5 6 7 Accordo

27. Non dipende da me se altri nel mio gruppo riescono bene

Disaccordo 1 2 3 4 5 6 7 Accordo

28. Il sostegno della famiglia aiuta un individuo a farsi strada nella vita

Disaccordo 1 2 3 4 5 6 7 Accordo

29. Non mi importa di essere in disaccordo con le altre persone del gruppo

Disaccordo 1 2 3 4 5 6 7 Accordo

30. Anche se al gruppo non sta andando bene, e' importante restare insieme

Disaccordo 1 2 3 4 5 6 7 Accordo

31. Io non c'entro con i successi ed i fallimenti dei miei parenti

Disaccordo 1 2 3 4 5 6 7 Accordo

32. Cio che mi succede non e' solo il risultato dei miei sforzi, ma dipende anche dagli altri

Disaccordo 1 2 3 4 5 6 7 Accordo

Disaccordo 1 2 3 4 5 6 7 Accordo

17. E' giusto essere completamente indipendenti dai parenti

Disaccordo 1 2 3 4 5 6 7 Accordo

18. In genere e' importante procedere nel senso desiderato dal proprio gruppo

Disaccordo 1 2 3 4 5 6 7 Accordo

19. Sul lavoro, gli obiettivi importanti si raggiungono solo con un buon gioco di squadra

Disaccordo 1 2 3 4 5 6 7 Accordo

20. Non mi si puo' criticare se un membro della mia famiglia sbaglia

Disaccordo 1 2 3 4 5 6 7 Accordo

21. Se gli altri del mio gruppo vanno bene anche la mia immagine migliora

Disaccordo 1 2 3 4 5 6 7 Accordo

22. Non penso sia necessario agire come i compagni di gruppo preferiscono

Disaccordo 1 2 3 4 5 6 7 Accordo

23. Quello che nel lavoro succede ad una persona e' indipendente da quello che succede a quelli che lavorano con lui

Disaccordo 1 2 3 4 5 6 7 Accordo

34. Non ha senso fare dei paragoni tra i propri parenti e quelli altrui

Disaccordo 1 2 3 4 5 6 7 Accordo

35. Un gruppo puo' dirsi soddisfatto se ha realizzato i propri obiettivi indipendentemente da quanto hanno realizzato altri gruppi

Disaccordo 1 2 3 4 5 6 7 Accordo

36. Mi capita spesso di confrontare il mio gruppo di lavoro con altri gruppi di lavoro

Disaccordo 1 2 3 4 5 6 7 Accordo

37. Le sorti del proprio gruppo sono legate a quelle di altri gruppi

Disaccordo 1 2 3 4 5 6 7 Accordo

38. Non mi interessa vedere se le mie amicizie sono peggiori o migliori di quelle degli altri

Disaccordo 1 2 3 4 5 6 7 Accordo

39. Per giudicare il proprio gruppo non occorre fare confronti con altri gruppi

Disaccordo 1 2 3 4 5 6 7 Accordo

40. Non e' possibile stabilire la realizzazione di un gruppo senza confrontarla con quella di altri gruppi

Disaccordo 1 2 3 4 5 6 7 Accordo

Disaccordo 1 2 3 4 5 6 7 Accordo

42. Non e' pssibile stabilire quanto la mia famiglia ha realizzato senza confrontarla con altre famiglie

Disaccordo 1 2 3 4 5 6 7 Accordo

43. I gruppi si definiscono nel confronto reciproco

Disaccordo 1 2 3 4 5 6 7 Accordo

44. Per giudicare il prestigio dei miei parenti, lo confronto con quello dei parenti di altre persone

Disaccordo 1 2 3 4 5 6 7 Accordo

45. Valuto le realizzazioni del mio gruppo di lavoro senza confrontarle con quelle di altri gruppi

Disaccordo 1 2 3 4 5 6 7 Accordo

46. Spesso confronto la mia famiglia con altre famiglie

Disaccordo 1 2 3 4 5 6 7 Accordo

47. Difficilmente confronto i miei amici con quelli di altri sulla base dei loro successi

Disaccordo 1 2 3 4 5 6 7 Accordo

dovessi esprimere la posizione generale dei due gruppi? Fai una crocetta sull'alternativa che esprime meglio le informazioni fornite:

□ Gli Psicologi sono ad un livello piu' elevato dei Commercialisti

□ Gli Psicologi sono all'incirca allo stesso livello dei Commercialisti

□ Gli Psicologi sono ad un livello inferiore dei Commercialisti

---

Di seguito sono illustrati i nostri risultati. Le lettere maiuscole nelle caselle rappresentano la percezione che in media la gente ha circa due diversi gruppi professionali

P = Psicologi
C = Commercialisti

Per esempio, se si considera la prima delle quattro scale che seguono, si puo' vedere che le persone da noi interpellate pensano che gli Psicologi abbiano elevate capacita' di comunicazione e che invece i Commercialisti abbiano limitate capacita' di comunicazione

Ti preghiamo di esaminare brevemente questi risultati prima di rispondere alle prossime domande.

Limitate capacita' di comunicazione | 1 | 2 | 3 | C 4 | 5 | P 6 | 7 | Elevate capacita' di comunicazione

Poco pazienti | 1 | C 2 | 3 | 4 | 5 | P 6 | 7 | Molto pazienti

Lavoro a limitato contenuto scientifico | 1 | C 2 | 3 | P 4 | 5 | 6 | 7 | Lavoro a elevato contenuto scientifico

Limitate doti empatiche | 1 | C 2 | 3 | 4 | 5 | P 6 | 7 | Elevate doti empatiche

1. Ritengo legittima la posizione relativa di Psicologi e Commercialisti nelle dimensioni citate in precedenza

1   2   3   4   5   6   7

Disaccordo   Accordo

2. E' improbabile che le differenze tra Psicologi e Commercialisti cambino molto nel prossimo futuro

1   2   3   4   5   6   7

Disaccordo   Accordo

3. Potrei facilmente diventare un Commercialista se volessi

1   2   3   4   5   6   7

Disaccordo   Accordo

4. La posizione relativa di Psicologi e Commercialisti e' ingiusta

1   2   3   4   5   6   7

Disaccordo   Accordo

5. E' probabile che la posizione relativa di Psicologi e Commercialisti cambi presto

1   2   3   4   5   6   7

Disaccordo   Accordo

6. Sarebbe difficile per me cambiare i miei studi da Psicologia ad Economia e Commercio

1   2   3   4   5   6   7

Disaccordo   Accordo

Il gruppo su cui ti chiediamo di concentrarti e' formato dalle persone che esercitano la professione di Psicologo o che aspirano (come nel tuo caso) a cio'.
Percio', pensa a questo specifico gruppo che per brevita' chiameremo PSICOLOGI nel rispondere alle domande che seguono.

1. Per me e' importante essere uno psicologo

1	2	3	4	5	6	7
Disaccordo						Accordo

2. Sento forti legami con altri psicologi

1	2	3	4	5	6	7
Disaccordo						Accordo

3. Mi secca dire che sono uno psicologo

1	2	3	4	5	6	7
Disaccordo						Accordo

4. Sono contento di essere uno psicologo

1	2	3	4	5	6	7
Disaccordo						Accordo

5. Ho la tendenza ad essere critico nei confronti di altri psicologi

1	2	3	4	5	6	7
Disaccordo						Accordo

6. Personalmente mi identifico con gli psicologi

1	2	3	4	5	6	7
Disaccordo						Accordo

8. Io mi considero uno psicologo

1	2	3	4	5	6	7
Disaccordo						Accordo

9. Mi capita di giustificarmi di essere uno psicologo

1	2	3	4	5	6	7
Disaccordo						Accordo

10. Mi capita di mascherare di essere uno psicologo

1	2	3	4	5	6	7
Disaccordo						Accordo

Nelle prossime due pagine, ti chiedono di fare una crocetta sul segmento che, per ogni riga, corrisponde alle tue opinioni, come nell' esempio seguente:

La mia famiglia					
allegra	—	✗	—	—	triste

Se ritieni che la tua famiglia sia "molto" allegra, fai una crocetta sul primo segmento dalla parte della parola allegra, se ritienti che invece sia "molto" triste, fai una crocetta sull'ultimo segmento dalla parte della parola triste. Se pero' non hai un'opinione cosi' forte, puoi fare una crocetta su uno dei segmenti intermedi. Nell'esempio di sopra, la propria famiglia e' considerata "abbastanza" allegra.

Intelligenti	—	—	—	—	—	—	Stupidi
Serii	—	—	—	—	—	—	Superficiali
Deboli	—	—	—	—	—	—	Forti
Cattivi	—	—	—	—	—	—	Buoni
Piacevoli	—	—	—	—	—	—	Spiacevoli
Simpatici	—	—	—	—	—	—	Antipatici
Interessanti	—	—	—	—	—	—	Noiosi
Passivi	—	—	—	—	—	—	Attivi
Scontrosi	—	—	—	—	—	—	Amichevoli
Improduttivi	—	—	—	—	—	—	Produttivi
Brutti	—	—	—	—	—	—	Belli
Sensibili	—	—	—	—	—	—	Insensibili
Disuniti	—	—	—	—	—	—	Uniti
Inutili	—	—	—	—	—	—	Utili

Intelligenti		|	|	|	|	|	|	Stupidi
Seri		|	|	|	|	|	|	Superficiali
Deboli		|	|	|	|	|	|	Forti
Cattivi		|	|	|	|	|	|	Buoni
Piacevoli		|	|	|	|	|	|	Spiacevoli
Simpatici		|	|	|	|	|	|	Antipatici
Interessanti		|	|	|	|	|	|	Noiosi
Passivi		|	|	|	|	|	|	Attivi
Scontrosi		|	|	|	|	|	|	Amichevoli
Improduttivi		|	|	|	|	|	|	Produttivi
Brutti		|	|	|	|	|	|	Belli
Sensibili		|	|	|	|	|	|	Insensibili
Disuniti		|	|	|	|	|	|	Uniti
Inutili		|	|	|	|	|	|	Utili

Rispondi alle seguenti domande cerchiando il numero che meglio corrisponde alle tue opinioni

1. Mi piacerebbe essere un Commercialista

1	2	3	4	5	6	7
per niente						molto

2. Sono curioso di saperne di piu' sui Commercialisti

1	2	3	4	5	6	7
per niente						molto

3. Mi piacciono i Commercialisti

1	2	3	4	5	6	7
per niente						molto

4. Sarei irritato se sedessi accanto ad un Commercialista in biblioteca

1	2	3	4	5	6	7
per niente						molto

5. Ammiro le caratteristiche dei Commercialisti

1	2	3	4	5	6	7
per niente						molto

6. Mi piacerebbe socializzare con altri Commercialisti

1	2	3	4	5	6	7
per niente						molto

APPENDIX B

English university student study

Department of Psychology
UNIVERSITY OF KENT
AT CANTERBURY ■ ■ ■ ■

Dear student.

my name is Sabina Aharpour and I am a research student in Psychology.

Today I am looking for your cooperation to get to know something more about "life at the university and the importance of the group of university students in your life".

This is a questionnaire which I would like you to fill in as spontaneously and sincerely as possible. expressing your true opinions and not those of someone else.

I assure you that your identity and with it your opinions will remain completely anonymous. The information you will provide will only be used for research purposes.

I'll get back to you with information about the results of this study sometime next term during one of your lectures.

You'll get 1 RPS credits for this.

Thank you very much for your cooperation.

Sabina Aharpour

Demographic details

Sex: Female

            Male

Age: ....years

RPS code..............

For each one of the following items, we ask you to circle a number to say how much you disagree or agree with it.
The group you have to refer to when filling in this section is that of your fellow
STUDENTS IN PSYCHOLOGY

1. If I want to evaluate this group, I compare it with how it was doing in the past

   1 disagree 2 3 4 5 6 7 agree

2. Even if the group is not doing well, it is important to stick together

   1 disagree 2 3 4 5 6 7 agree

3. Being in this group means there are specific expectations as to how one should behave

   1 disagree 2 3 4 5 6 7 agree

4. Others in this group do not help me to feel good about myself

   1 disagree 2 3 4 5 6 7 agree

5. When I am with others of this group I always have fun

   1 disagree 2 3 4 5 6 7 agree

6. Other members of this group have not really helped me to understand myself better

   1 disagree 2 3 4 5 6 7 agree

7. I am better than some others in this group

   1 *disagree* 2 3 4 5 6 7 *agree*

8. I often compare this group with other groups

   1 disagree 2 3 4 5 6 7 agree

9. The ideas of other members of this group don't influence me much

   1 disagree 2 3 4 5 6 7 agree

10. It is important for me to be a member of this group

    1 disagree 2 3 4 5 6 7 agree

11. This group does not give me a sense of belonging

    1 disagree 2 3 4 5 6 7 agree

12. I seldom validate my opinions by comparing them with those of others in this group

    1 disagree 2 3 4 5 6 7 agree

13. I am often aware of how similar I am to most other people in this group and of how different we are from other groups

    1 disagree 2 3 4 5 6 7 agree

14. I can help others by staying in this group

    1 disagree 2 3 4 5 6 7 agree

15. My understanding of people has improved by being a member of this group

    1 disagree 2 3 4 5 6 7 agree

16. What I achieve is not only the result of my efforts but also depends on the contribution of others in this group

    1 disagree 2 3 4 5 6 7 agree

17. When I am in this group I don't often think of what a typical member would do in this situation

    1 disagree 2 3 4 5 6 7 agree

18. I would be better off materially if I didn't belong to this group

    1 disagree 2 3 4 5 6 7 agree

19. I make excuses for being a member of this group

    1 disagree 2 3 4 5 6 7 agree

20. Some others in this group are worse than I am

    1 disagree 2 3 4 5 6 7 agree

21. Working with others in this group is more trouble than it is worth

   1   2   3   4   5   7   —
disagree   agree

22. I find it difficult to express my feelings to others in this group

   1   2   3   4   5   6   —
disagree   agree

23. I do not have a clear idea of what the typical attributes of a member of this group are

   1   2   3   4   5   6   —
disagree   agree

24. The only way for us to achieve something is by being a member of this group

   1   2   3   4   5   5   —
disagree   agree

25. As a member of this group I don't feel useful

   1   2   3   4   5   6   7
disagree   agree

26. I feel close links with other members of this group

   1   2   3   4   5   6   7
disagree   agree

27. It is by comparing my opinions with those of others in this group that I understand things better

   1   2   3   4   5   6   7
disagree   agree

28. I don't think it is necessary to do as my group members prefer

   1   2   3   4   5   6   7
disagree   agree

29. What we achieve by staying in this group is actually less than what I could do on my own

   1   2   3   4   5   6   7
disagree   agree

30. In this group we do what we can to help each other

   1   2   3   4   5   6   —
disagree   agree

31. I am glad to be a member of this group

   1   2   3   4   5   6   7
disagree   agree

32. There is a sense of community and unity in this group

   1   2   3   4   5   6   7
disagree   agree

33. There are absolute standards by which this group can be evaluated

   1   2   3   4   5   6   7
disagree   agree

34. Being a member of this group gives me an opportunity to do something for its members

   1   2   3   4   5   6   7
disagree   agree

35. Some of the benefits I have come from the fact that I am a member of this group

   1   2   3   4   5   5   —
disagree   agree

36. I have not gained much self insight from the others in this group

   1   2   3   4   5   6   7
disagree   agree

37. I sometimes try to hide belonging to this group

   1   2   3   4   5   6   7
disagree   agree

38. As a result of belonging to this group I feel more self confident

   1   2   3   4   5   6   7
disagree   agree

39. I see others in this group mainly as members of the same group rather than as separate individuals

   1   2   3   4   5   6   7
disagree   agree

40. It is not possible to assess this group's achievements without comparing them with those of other groups

   1   2   3   4   5   6   7
disagree   agree

41. In this group we do not work together very well

   1   2   3   4   5   6   7
disagree   agree

42. I cannot say what I really think to others in this group

   1   2   3   4   5   6   7
disagree   agree

43. I am not really interested to see if this group does well or badly in comparison to others

1   2   3   4   5   6   7
disagree   agree

44. I get so many rewards in this group that it is worth staying

1   2   3   4   5   6   7
disagree   agree

45. I criticise other members of this group

1   2   3   4   5   6   7
disagree   agree

46. Other members of this group have not increased my ability to get along with people

1   2   3   4   5   6   7
disagree   agree

47. I am not doing better compared to others in this group

1   2   3   4   5   6   7
disagree   agree

48. I do not enjoy myself much with people in this group

1   2   3   4   5   6   7
disagree   agree

Now we would like to know the importance you attribute to the group of your fellow *students in Psychology* for yourself. To answer this. all you have to do is place a "X" on the place you believe the group is . Remember. the closer this "X" is to the word "yourself". more important the group is for you.
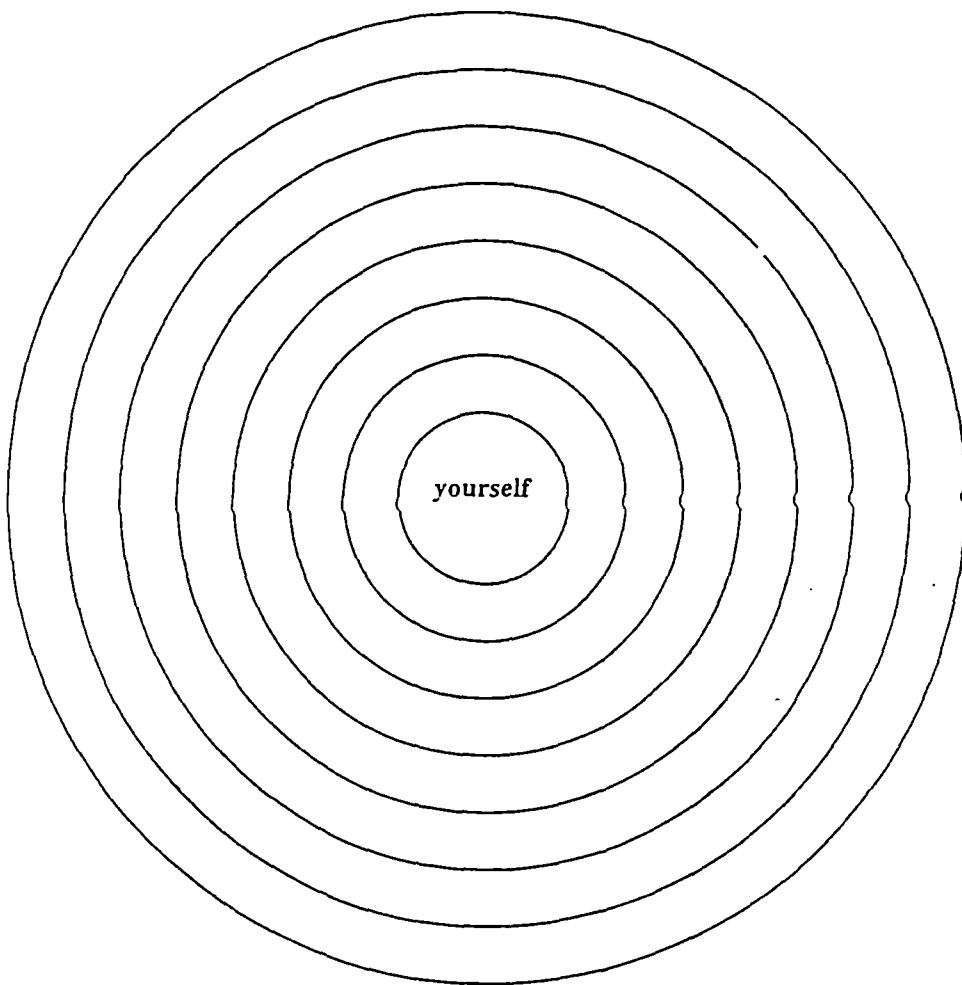
In the following pages you will find four vignettes that represent various behavioral episodes. Each episode refers to a different person. In some cases, the central character, performing the behavior, is identified with an arrow. Each vignette is described by four statements. We ask that you study the picture carefully and then circle a number for each statement to say how accurately that statement accounts for the behavior. So, *in every page, you have to give your opinion about each of the four statements.*

Please don't omit any item.
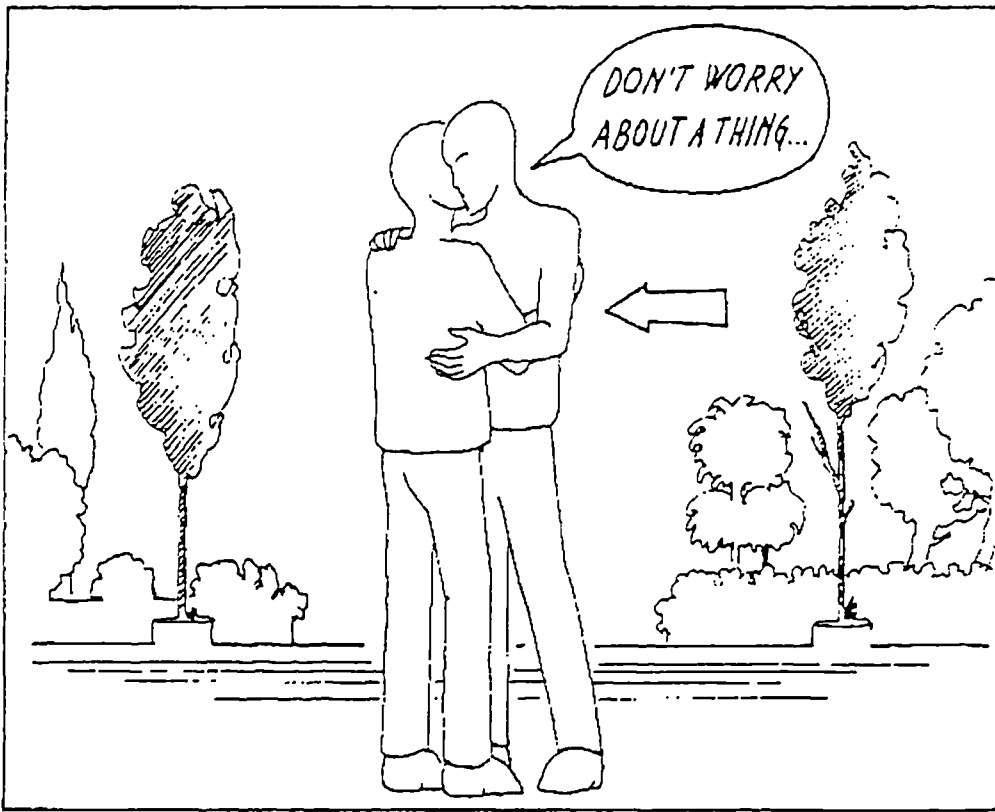
This is an Accountancy student who...

...is concerned for a friend

1	2	3	4	5	6	7
not accurate at all						very accurate

...is embracing someone

1	2	3	4	5	6	7
not accurate at all						very accurate

...is compassionate

1	2	3	4	5	6	7
not accurate at all						very accurate

...is comforting a friend

1	2	3	4	5	6	7
not accurate at all						very accurate
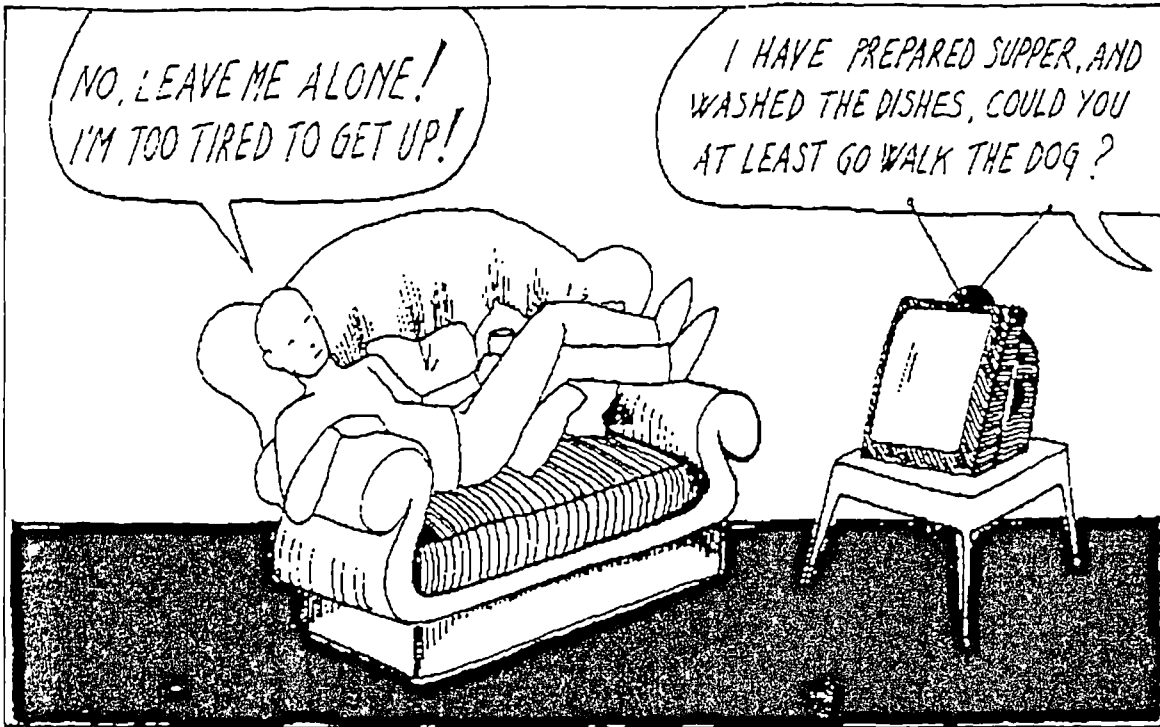
This is a Psychology student who...

...lacks energy

1	2	3	4	5	6	7
not accurate at all						very accurate

...is lazy

1	2	3	4	5	6	7
not accurate at all						very accurate

...is unwilling to help

1	2	3	4	5	6	7
not accurate at all						very accurate

...is lying on the sofa

1	2	3	4	5	6	7
not accurate at all						very accurate
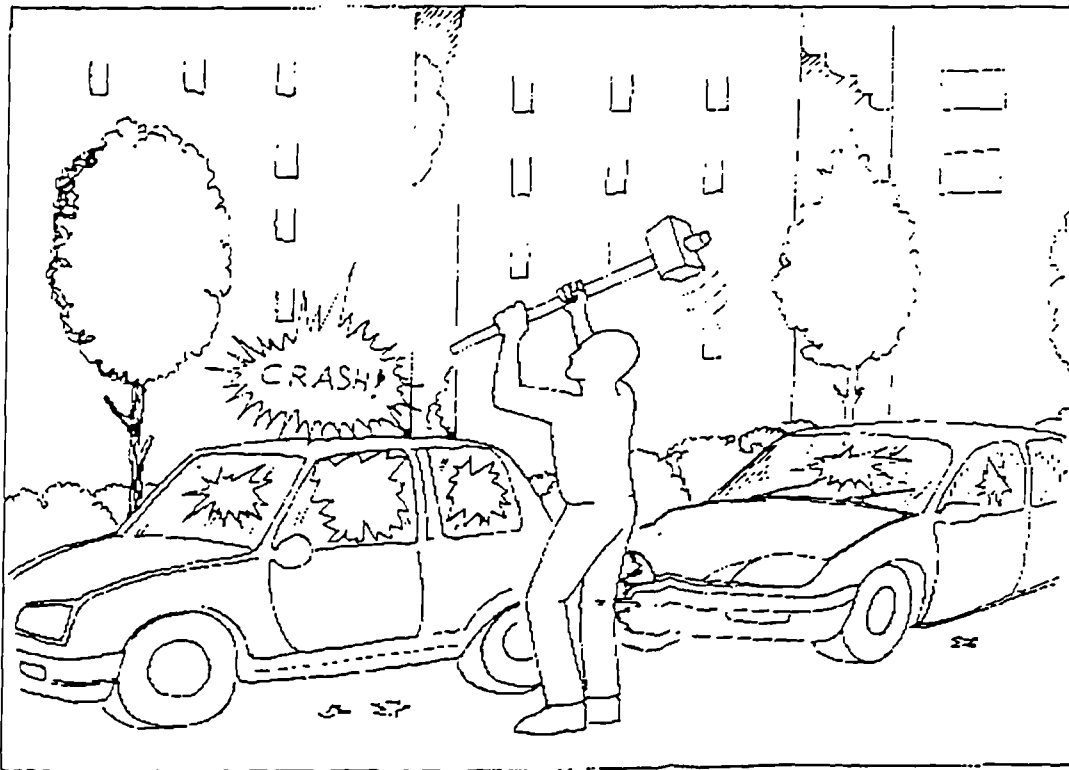
This is an Accountancy student who...

...is violent

1	2	3	4	5	6	7
not accurate at all						very accurate

...is damaging a vehicle

1	2	3	4	5	6	7
not accurate at all						very accurate

...is breaking the car window

1	2	3	4	5	6	7
not accurate at all						very accurate

...disrespects things belonging to others

1	2	3	4	5	6	7
not accurate at all						very accurate
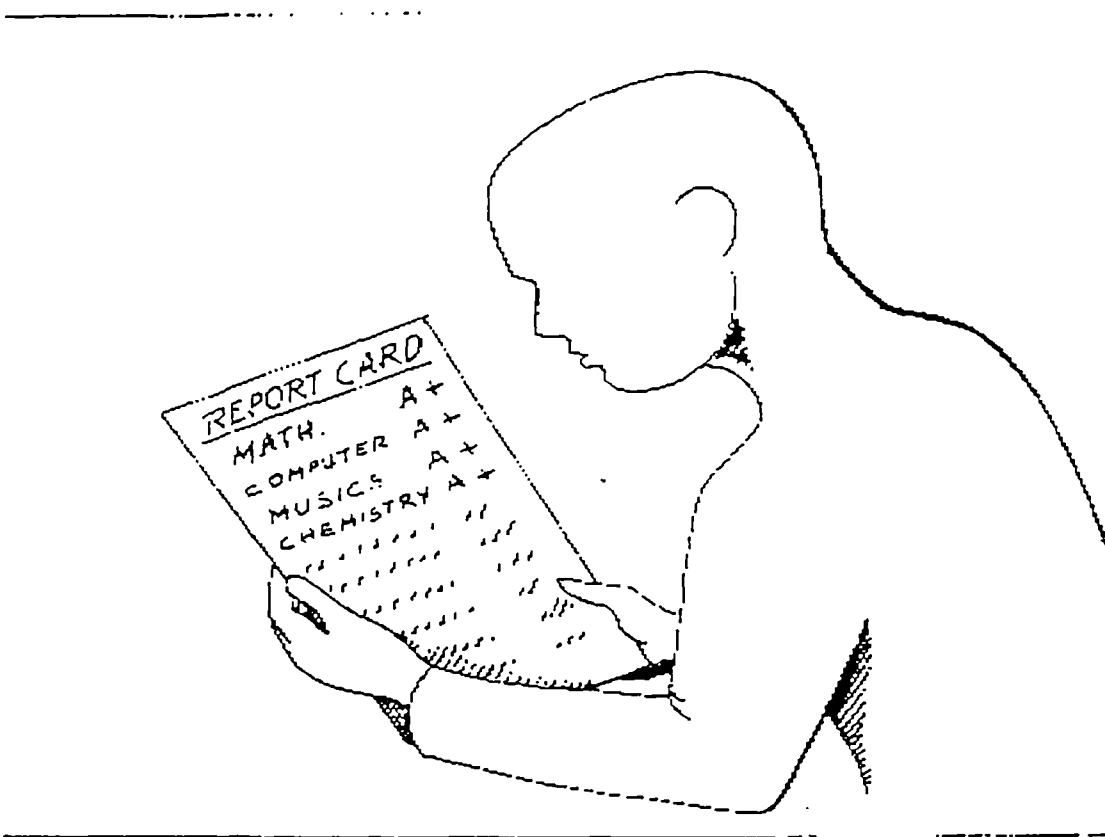
This is a Psychology student who...

...is looking at his/her report card

	1	2	3	4	5	6	7	
not accurate at all								very accurate

...masters difficult subjects

	1	2	3	4	5	6	7	
not accurate at all								very accurate

...performs well at school

	1	2	3	4	5	6	7	
not accurate at all								very accurate

...is intelligent

	1	2	3	4	5	6	7	
not accurate at all								very accurate

The next few questions are all about how similar or different member of a group are to each other. For instance. if you consider the students in general. there are very intelligent people as well as less intelligent ones. Some variability is present in your group as well.

In the following section we ask your opinion about the group of your fellow *students in Psychology* on a series of traits.

You have to put two marks on the line as to express how your group varies on each specific trait.

See the example below:

```
                    ——————+———————————/———————

         not intelligent                    intelligent

(bottom 5% of all students)              (top 5% of all students)
```
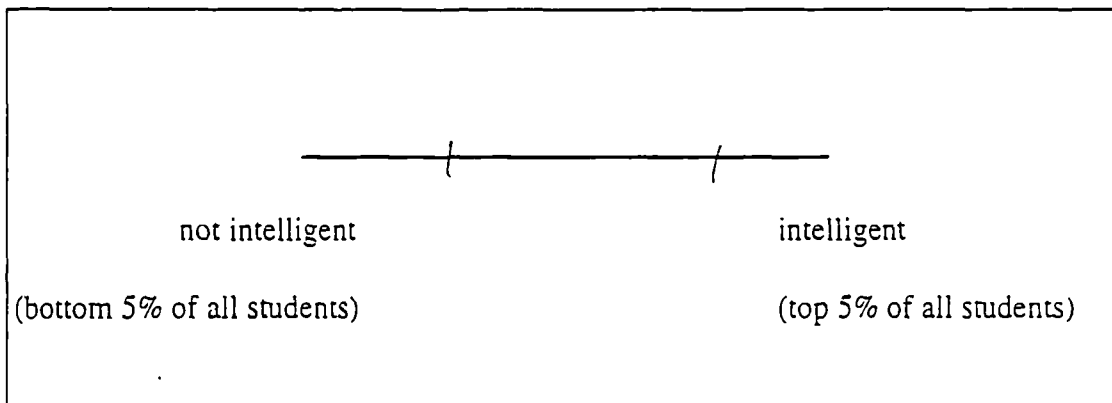
You can put the two marks wherever you want as long as they reflect the range of the trait you see in your group.

Psychology students

---

not attentive to detail   attentive to detail

---

unable to organize things   able to organize things

---

not patient   patient

---

low level of numeracy   high level of numeracy

---

not perceptive   perceptive

---

poor in communication skills   good in communication skills

Now answer the same questions for _**Accountancy students**_

_____

not attentive to detail   attentive to detail

_____

unable to organize things   able to organize things

_____

not patient   patient

_____

low level of numeracy   high level of numeracy

_____

not perceptive   perceptive

_____

poor in communication skills   good in communication skills

How much do you think you would ....

1. .... like to cooperate with accountancy students in a joint program

1	2	3	4	5	6	7
not at all						very much

2. ....be curious to know something more about accountancy students

1	2	3	4	5	6	7
not at all						very much

3. ....like accountancy *students*

1	2	3	4	5	6	7
not at all						very much

4. .... be irritated to work with other accountancy students

1	2	3	4	5	6	7
not at all						very much

5. .... admire accountancy students' characteristics

1	2	3	4	5	6	7
not at all						very much

6. ....be keen to socialize with accountancy students

1	2	3	4	5	6	7
not at all						very much

In the following section. you have to circle the number which best expresses what you think on each item. so in the following example :

My group of friends
interesting   1   (2)   3   4   5   6   7   tedious

If you think that your group of friends is **very** interesting circle number 1, and if you think that it is **very** tedious, circle number 7. However, if you do not have such strong opinion about it, you circle number 2, 3, 5 or 6 (as in the example where the number "2" means that the group of friends is considered quite interesting) . In fact, you can circle any number to show just how you feel.

A TYPICAL STUDENT IN PSYCHOLOGY

strong	1	2	3	4	5	6	7	weak
hard-working	1	2	3	4	5	6	7	lazy
passive	1	2	3	4	5	6	7	active
stupid	1	2	3	4	5	6	7	intelligent
unselfish	1	2	3	4	5	6	7	selfish
pleasant	1	2	3	4	5	6	7	unpleasant
sincere	1	2	3	4	5	6	7	false
unfriendly	1	2	3	4	5	6	7	friendly
cold	1	2	3	4	5	6	7	warm
polite	1	2	3	4	5	6	7	rude
honest	1	2	3	4	5	6	7	dishonest
desirable	1	2	3	4	5	6	7	undesirable
in control of self	1	2	3	4	5	6	7	not in control of self
low reputation generally	1	2	3	4	5	6	7	high reputation generally
sad	1	2	3	4	5	6	7	happy

A TYPICAL STUDENT IN ACCOUNTANCY

strong	1	2	3	4	5	6	7	weak
hard-working	1	2	3	4	5	6	7	lazy
passive	1	2	3	4	5	6	7	active
stupid	1	2	3	4	5	6	7	intelligent
unselfish	1	2	3	4	5	6	7	selfish
pleasant	1	2	3	4	5	6	7	unpleasant
sincere	1	2	3	4	5	6	7	false
unfriendly	1	2	3	4	5	6	7	friendly
cold	1	2	3	4	5	6	7	*warm*
polite	1	2	3	4	5	6	7	rude
honest	1	2	3	4	5	6	7	dishonest
desirable	1	2	3	4	5	6	7	undesirable
in control of self	1	2	3	4	5	6	7	not in control of self
low reputation generally	1	2	3	4	5	6	7	high reputation generally
sad	1	2	3	4	5	6	7	happy

APPENDIX C

Football supporter study

Department of Psychology
UNIVERSITY OF KENT
AT CANTERBURY ■■■

Dear_____...supporter,,

my name is Sabina Aharpour and I am doing some research at the University of Kent at Canterbury.

I am asking for your help to get to know something more about people's experience as football supporters and the importance of football in your life.

This is a questionnaire which *I would like you to fill in as quickly and honestly as possible. Please fill it out yourself and do not consult others.*

Your opinions will remain completely anonymous. The information you provide will only be used for research purposes.

Please try to answer every single question.

Thank you very much for your cooperation.

Sabina Aharpour

Personal details

Sex: ☐ Female
     ☐ Male

Age: ....years

... or each one of the following questions, please circle a number to say how much you
disagree or agree with it.
The group to refer to when filling in this section is that of your fellow

SUPPORTERS

1. If I want to see how good ___ is, I compare it with how it was doing in the past

disagree 1 2 3 4 5 6 7 agree

2. Even if ___ is not doing well, it is important to stick together

disagree 1 2 3 4 5 6 7 agree

3. Being a ___ supporter means there are specific expectations as to how one should behave

disagree 1 2 3 4 5 6 7 agree

4. Other ___ supporters do not help me to feel good about myself

disagree 1 2 3 4 5 6 7 agree

5. When I am with other ___ supporters I always have fun

disagree 1 2 3 4 5 6 7 agree

6. Other ___ supporters have not really helped me to understand myself better

disagree 1 2 3 4 5 6 7 agree

7. I am better than some other ___ supporters

disagree 1 2 3 4 5 6 7 agree

... I often compare ... supporters in keeping with that group of supporters ...

9. The ideas of other ___ supporters don't influence me much

disagree 1 2 3 4 5 6 7 agree

10. It is important for me to be a ___ supporter

disagree 1 2 3 4 5 6 7 agree

11. This group does not give me a sense of belonging

disagree 1 2 3 4 5 6 7 agree

12. I seldom check out my opinions by comparing them with those of other supporters

disagree 1 2 3 4 5 6 7 agree

13. I am often aware of how similar I am to most other ___ supporters and of how different we are from other group of supporters

disagree 1 2 3 4 5 6 7 agree

14. I can help others by staying in this group

disagree 1 2 3 4 5 6 7 agree

15. My understanding of people has improved by being a ___ supporter

disagree 1 2 3 4 5 6 7 agree

16. What I achieve is not really the result of my efforts of others u ... open o ... is
contribution of others in this group

disagree 1   2   3   4   5   6   7 agree

17. When I am in this group I don't often think of what a typical
supporter would do in this situation

disagree 1   2   3   4   5   6   7 agree

18. I would be better off materially if I didn't belong to the supporters
group

disagree 1   2   3   4   5   6   7 agree

19. I make excuses for being a supporter

disagree 1   2   3   4   5   6   7 agree

20. Some others in this group are worse than I am

disagree 1   2   3   4   5   6   7 agree

21. Doing things together with other supporters is more trouble than it is
worth

disagree 1   2   3   4   5   6   7 agree

22. I find it difficult to express my feelings to other supporters

disagree 1   2   3   4   5   6   7 agree

23. I do not have a clear idea of what the typical attributes of a
supporter are

disagree 1   2   3   4   5   6   7 agree

24. The only way for us supporters to achieve something is by being a
member of this group

disagree 1   2   3   4   5   6   7 agree

25. As a supporter I don't feel useful

disagree 1   2   3   4   5   6   7 agree

26. I feel close links with other members of the supporters group

disagree 1   2   3   4   5   6   7 agree

27. It is by comparing my opinions with those of others supporters that I
understand things better

disagree 1   2   3   4   5   6   7 agree

28. I don't think it is necessary to do as other supporters prefer

disagree 1   2   3   4   5   6   7 agree

29. What I achieve by staying in this group of supporters is actually less
than what I could do on my own

disagree 1   2   3   4   5   6   7 agree

30. In this group we do what we can to help each other

disagree 1   2   3   4   5   6   7 agree

31. I am glad to be a supporter

disagree 1   2   3   4   5   6   7 agree

32. There is a sense of community and unity in this group

1   2   3   4   5   6   7 agree

33. *There are absolute standards by which the group of* supporters can
be evaluated

disagree 1   2   3   4   5   6   7 agree

34. Being a supporter gives me a chance to do something for other
members of this group

disagree 1   2   3   4   5   6   7 agree

35. Some of the benefits I have come from the fact that I am a supporter

disagree 1   2   3   4   5   6   7 agree

36. I have not gained much insight into myself from other supporters

disagree 1   2   3   4   5   6   7 agree

37. I sometimes try to hide being a supporter

disagree 1   2   3   4   5   6   7 agree

38. As a result of belonging to the supporters group I feel more self
confident

disagree 1   2   3   4   5   6   7 agree

39. I see other supporters mainly as members of the same group rather
than as separate individuals

disagree 1   2   3   4   5   6   7 agree

40. It is not possible to assess this club's achievements without comparing them
with those of other groups

disagree 1   2   3   4   5   6   7 agree

41. As supporters we do not do things together very well

disagree 1   2   3   4   5   6   7 agree

42. I cannot say what I really think to other supporters

disagree 1   2   3   4   5   6   7 agree

43. I am not really interested to see if this club does well or badly in comparison
to others

disagree 1   2   3   4   5   6   7 agree

44. I get so many rewards as a supporter that it is worth staying in this
group

disagree 1   2   3   4   5   6   7 agree

45. I criticise other supporters

disagree 1   2   3   4   5   6   7 agree

46. Other people supporters have not made it easier for me to get along with

disagree 1   2   3   4   5   6   7 agree

47. I am not doing better compared to other supportrs

disagree 1   2   3   4   5   6   7 agree

48. I do not enjoy myself much with people in this group

disagree 1   2   3   4   5   6   7 agree
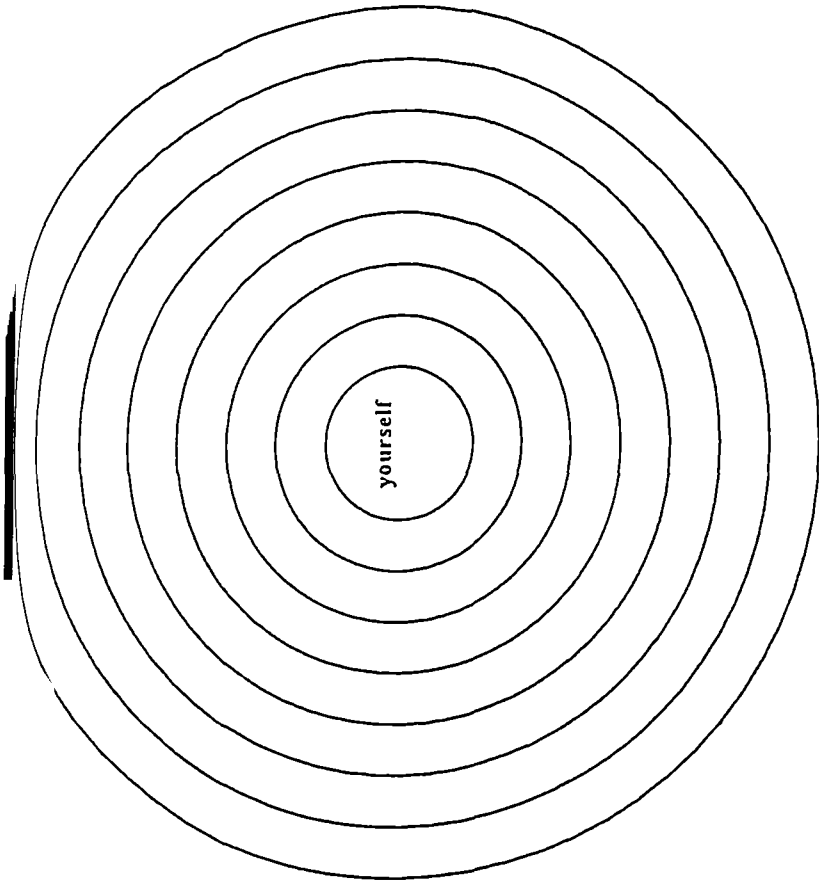
yourself

Now we would like to know the importance you attribute to the group of your fellow ___ . . . _supporters_ for yourself. To answer this, all you have to do is place a "X" on the place you believe the group is . Remember, the closer this "X" is to the word "yourself", more important the group is for you.

How much do you think you would ......

1. ...... like to play in the same team with other .... supporters

not at all 1 2 3 4 5 6 7 very much

2. ......be curious to know something more about .... supporters

not at all 1 2 3 4 5 6 7 very much

3. ....like .... supporters

not at all 1 2 3 4 5 6 7 very much

4. .... be irritated to sit next to a .... supporter on the train home

not at all 1 2 3 4 5 6 7 very much

5. .... admire .... supporters' characteristics

not at all 1 2 3 4 5 6 7 very much

6. ....be keen to socialize with .... supporters

not at all 1 2 3 4 5 6 7 very much

Now, here are some questions about another club,

Answer them in the same way as before by circling a number beneath each question.

On the next two pages you are asked to think what a typical . and a typical supporter is like. Just as before, circle a number on each line which shows what you think typical or . supporters are like.

Try to give an answer on every line, even if you are not sure.

	1	2	3	4	5	6	7	
strong	1	2	3	4	5	6	7	weak
hard-working	1	2	3	4	5	6	7	lazy
passive	1	2	3	4	5	6	7	active
stupid	1	2	3	4	5	6	7	intelligent
unselfish	1	2	3	4	5	6	7	selfish
pleasant	1	2	3	4	5	6	7	unpleasant
sincere	1	2	3	4	5	6	7	false
unfriendly	1	2	3	4	5	6	7	friendly
cold	1	2	3	4	5	6	7	warm
polite	1	2	3	4	5	6	7	rude
honest	1	2	3	4	5	6	7	dishonest
desirable	1	2	3	4	5	6	7	undesirable
has self control	1	2	3	4	5	6	7	has littl self control
low reputation generally	1	2	3	4	5	6	7	high reputation generally
sad	1	2	3	4	5	6	7	happy

A typical SUPPORTER is....

strong	1	2	3	4	5	6	7	weak
hard-working	1	2	3	4	5	6	7	lazy
passive	1	2	3	4	5	6	7	active
stupid	1	2	3	4	5	6	7	intelligent
unselfish	1	2	3	4	5	6	7	selfish
pleasant	1	2	3	4	5	6	7	unpleasant
sincere	1	2	3	4	5	6	7	false
unfriendly	1	2	3	4	5	6	7	friendly
cold	1	2	3	4	5	6	7	warm
polite	1	2	3	4	5	6	7	rude
honest	1	2	3	4	5	6	7	dishonest
desirable	1	2	3	4	5	6	7	undesirable
has self control	1	2	3	4	5	6	7	has littl self control
low reputation generally	1	2	3	4	5	6	7	high reputation generally
sad	1	2	3	4	5	6	7	happy

University of Kent at Canterbury
Psychology Department
Final year psychology project questionnaire

Age:
Sex:
Name of your university:

Dear participant,
I am a final year student at the University of Kent. My project is concerned with the
relationship between you and your group. Therefore, this questionnaire asks your views about
your university.

In this questionnaire, you will find a series of statements or questions and a 7 point scale on
which to answer.
e.g.:

It is important to study at the university.
Absolutely Disagree   1   2   3   4   5   6   7   Absolutely Agree

Simply circle the number that matches your feeling about the statement. Do not spend long on
each question.

This questionnaire is confidential, but for analysis reasons, you will be required to write your
age, sex and university name. The result of this questionnaire will be available in May, 1997.
If you have a queries about the questionnaire, please don't hesitate to contact me.
Thanking you in anticipation,
Yasushi Usuda
(e-mail:yu2@ukc.ac.uk)

Please read a short story:
Suddenly, your university notifies you it is to be closed down. The university has been revealed as being corrupt. All students including you and staff are worried about losing their position in society. Meanwhile another university offers you a place. A demonstration is planned against the close down by your student union and teacher's union. If you join in the demonstration, you will have to abandon the place which has been offered by another university. But if you choose to move to another university, you will not be able to go back to your university even if the demonstration is successful and the university remains open. You have to decide what you have to do.

If the situation above happened to you, what would you do?
Select your answer.

1. I will move to the other university that offered me a place.

Absolutely Disagree   1   2   3   4   5   6   7   Absolutely Agree

2. I will demonstrate against the close down with friends and colleagues.

Absolutely Disagree   1   2   3   4   5   6   7   Absolutely Agree

In this section, think about your perspective of society.

1. It is important when introducing myself to someone that I say which university I belong to rather than what I actually study.

Absolutely Disagree   1   2   3   4   5   6   7   Absolutely Agree

2. It does not matter which university I belong to.

Absolutely Disagree   1   2   3   4   5   6   7   Absolutely Agree

3. I think it is more important to tell others what I study rather than at which university I study.

Absolutely Disagree   1   2   3   4   5   6   7   Absolutely Agree

4. To be honest, I prefer making a friends in the same university to making a friends with a person who does the same kind of study.

Absolutely Disagree   1   2   3   4   5   6   7   Absolutely Agree

5. I consciously distinguish between "our (in)" university and "other (out)" university.

Absolutely Disagree   1   2   3   4   5   6   7   Absolutely Agree

6. I consciously recognise "our (in)" university and "other (out)" university.

Absolutely Disagree   1   2   3   4   5   6   7   Absolutely Agree

7. I prefer telling others what I study rather than which university I go to.

Absolutely Disagree   1   2   3   4   5   6   7   Absolutely Agree

In this section, Think of an another university which you do NOT belong to.
Write down the name of that university.

Name:_____

Now, imagine "*a typical student of that university*" and circle the number that best describes how you see this person.

Hard-working	1 2 3 4 5 6 7	Lazy
Intelligent	1 2 3 4 5 6 7	Stupid
Serious	1 2 3 4 5 6 7	Frivolous
Polite	1 2 3 4 5 6 7	Rude
Low reputation	1 2 3 4 5 6 7	High reputation
Attractive	1 2 3 4 5 6 7	Unattractive
Friendly	1 2 3 4 5 6 7	Unfriendly
Considerate to others	1 2 3 4 5 6 7	Selfish
Personality	1 2 3 4 5 6 7	Non-personality
Positive	1 2 3 4 5 6 7	Negative
Open	1 2 3 4 5 6 7	Closed

In this section, imagine "*a typical student of your university*" and circle the number that best describes how you see this person.

Hard-working	1 2 3 4 5 6 7	Lazy
Intelligent	1 2 3 4 5 6 7	Stupid
Serious	1 2 3 4 5 6 7	Frivolous
Polite	1 2 3 4 5 6 7	Rude
Low reputation	1 2 3 4 5 6 7	High reputation
Attractive	1 2 3 4 5 6 7	Unattractive
Friendly	1 2 3 4 5 6 7	Unfriendly
Considerate to others	1 2 3 4 5 6 7	Selfish
Personality	1 2 3 4 5 6 7	Non-personality
Positive	1 2 3 4 5 6 7	Negative
Open	1 2 3 4 5 6 7	Closed

In this section, think what it means to be a member of your university.

1. It is important for me to be a member of this university.

Absolutely Disagree   1   2   3   4   5   6   7   Absolutely Agree

2. I feel close links with other members of this university.

Absolutely Disagree   1   2   3   4   5   6   7   Absolutely Agree

3. I sometimes try to hide belonging to this university.

Absolutely Disagree   1   2   3   4   5   6   7   Absolutely Agree

4. I make excuses for being a member of this university.

Absolutely Disagree   1   2   3   4   5   6   7   Absolutely Agree

5. I am glad to be a member of this university.

Absolutely Disagree   1   2   3   4   5   6   7   Absolutely Agree

6. I feel held back by members of this university.

Absolutely Disagree   1   2   3   4   5   6   7   Absolutely Agree

12. If group is slowing me down it is better to leave it and work alone.

Absolutely Disagree   1   2   3   4   5   6   7   Absolutely Agree

13. I do not mind disagreeing with others in the group.

Absolutely Disagree   1   2   3   4   5   6   7   Absolutely Agree

14. Even if the group is not doing well it is important to stick together.

Absolutely Disagree   1   2   3   4   5   6   7   Absolutely Agree

15. I often compare my group with other groups.

Absolutely Disagree   1   2   3   4   5   6   7   Absolutely Agree

16. A group can consider itself satisfied if it realises it own goals independently of what other groups do.

Absolutely Disagree   1   2   3   4   5   6   7   Absolutely Agree

17. I do not care if my group friends are better or worse than friends of others.

Absolutely Disagree   1   2   3   4   5   6   7   Absolutely Agree

18. To judge my own group it is not necessary to make comparisons with other groups.

Absolutely Disagree   1   2   3   4   5   6   7   Absolutely Agree

19. It is not possible to assess a group's achievement without comparing it with that of other groups.

Absolutely Disagree   1   2   3   4   5   6   7   Absolutely Agree

20. I am really interested to see if my group does well or badly in comparison to others.

Absolutely Disagree   1   2   3   4   5   6   7   Absolutely Agree

21. I evaluate the achievements of my group without comparing them with those of other groups.

Absolutely Disagree   1   2   3   4   5   6   7   Absolutely Agree

In this section, think of "your university." The questions below ask about "you and others in the university." "Group" in the questions refers to the *university*.

1. I work better in a group than alone.

Absolutely Disagree   1   2   3   4   5   6   7   Absolutely Agree

2. If one is no longer in agreement with old friends it is better to leave them and look for new ones.

Absolutely Disagree   1   2   3   4   5   6   7   Absolutely Agree

3. The ideas of my colleagues do not influence me much.

Absolutely Disagree   1   2   3   4   5   6   7   Absolutely Agree

4. What I achieve is not only the result of my efforts but also depends on the contribution of others.

Absolutely Disagree   1   2   3   4   5   6   7   Absolutely Agree

5. It is important to maintain agreement in the group.

Absolutely Disagree   1   2   3   4   5   6   7   Absolutely Agree

6. It is partly my fault if a member of my group does not succeed.

Absolutely Disagree   1   2   3   4   5   6   7   Absolutely Agree

7. Working with others is usually more trouble than it is worth.

Absolutely Disagree   1   2   3   4   5   6   7   Absolutely Agree

8. I do not derive any benefit from the success of other members of my group.

Absolutely Disagree   1   2   3   4   5   6   7   Absolutely Agree

9. It is important to maintain agreement with one's colleagues.

Absolutely Disagree   1   2   3   4   5   6   7   Absolutely Agree

10. In general it is important to go along with what the rest of one's group wants.

Absolutely Disagree   1   2   3   4   5   6   7   Absolutely Agree

11. If others in my group do well it makes me look better.

Absolutely Disagree   1   2   3   4   5   6   7   Absolutely Agree

APPENDIX E

Trade Union study

KENT

UNIVERSITY OF KENT
AT CANTERBURY ■ ■ ■ ■

QUESTIONNAIRE

The questionnaire overleaf comprises a series of statements about Management and Trade Unions/Professional Organisations. Please indicate your opinion about each statement by *placing a circle* around the appropriate number on the scale.

For example, here is a statement:-

My job is important to me   1   2   3   4   ⑤   6   7
                                       Disagree   Agree

If you regard your job as somewhat important you could circle 5 as shown. If you felt more strongly you could circle 6 or 7. If you disagreed with the statement you would circle 1, 2 or 3. In fact you can circle any number you like to show exactly what you think.

Firstly, could you please provide the following information about yourself:-

Male/Female   ....

Age: ....

Occupation: ....

Employed by: .... NHS Trust

Which Trade Union/Professional Organisation are you a member of? ....

Please now proceed to the questions overleaf.

Please Return your Completed Questionnaire
via the Internal Mailing System, to Denella Brunette,
using the enclosed Confidential Envelope.

TO BE RETURNED BY 31 DECEMBER 1996 PLEASE.

Wherever the questions refer to the *Union/Professional Organisation*, this means the Union or Professional Organisation which *you* are a member of, e.g. UNISON, RCN, MSF, TGWU, GMB etc.

1.   I feel a sense of pride in being a member of my Union/Professional Organisation

Disagree   1 2 3 4 5 6 7 Agree

2.   Management and Unions/Professional Organisations here share many common objectives.

Disagree   1 2 3 4 5 6 7 Agree

3.   My loyalty is to my work, *not* to the Union/Professional Organisation.

Disagree   1 2 3 4 5 6 7 Agree

4.   The Union/Professional Organisation is often more rigid and inflexible than management.

Disagree   1 2 3 4 5 6 7 Agree

5.   I have little confidence and trust in most members of my Union/Professional Organisation.

Disagree   1 2 3 4 5 6 7 Agree

6.   I feel a strong sense of "them" and "us" between management and the Union/Professional Organisation.

Disagree   1 2 3 4 5 6 7 Agree

7.   Deciding to join the Union/Professional Organisation was a good move on my part.

1 2 3 4 5 6 7

8.   Jobs are more secure now than before the NHS Reforms.

Disagree   1 2 3 4 5 6 7 Agree

9.   Improvements in terms and conditions at work can only be achieved through the Union/Professional Organisation.

Disagree   1 2 3 4 5 6 7 Agree

10.   My Union/Professional Organisation fails to appreciate any extra effort from me.

Disagree   1 2 3 4 5 6 7 Agree

11.   Union/Professional Organisation members are warmer individuals than most managers.

Disagree   1 2 3 4 5 6 7 Agree

12.   The record of my Union/Professional Organisation is a good example of what dedicated people can get done.

Disagree   1 2 3 4 5 6 7 Agree

13.   Management is just as democratic as the Union/Professional Organisation.

Disagree   1 2 3 4 5 6 7 Agree

14. If there was no Union/Professional Organisation, management would take advantage of the workforce.

    1 2 3 4 5 6 7

Disagree   Agree

15. Local pay determination will lead to staff losing out.

    1 2 3 4 5 6 7

Disagree   Agree

16. My Union/Professional Organisation is *not* really concerned with ensuring that I am paid what I deserve.

    1 2 3 4 5 6 7

Disagree   Agree

17. My Union/Professional Organisation would *not* ignore a complaint from me.

    1 2 3 4 5 6 7

Disagree   Agree

18. My values and the values of the Union/ Professional Organisation are *not* very similar.

    1 2 3 4 5 6 7

Disagree   Agree

19. NHS Managers have done better for themselves than ordinary health care workers since the NHS reforms.

    1 2 3 4 5 6 7

Disagree   Agree

20. I could just as well work in an organisation where there were no Unions/Professional Organisations as long as the type of work was similar.

    1 2 3 4 5 6 7

Disagree   Agree

21. Management and Unions/Professional Organisations here are constantly pulling in different directions.

    1 2 3 4 5 6 7

Disagree   Agree

22. Union/Professional Organisation presence in the Trust does little to make jobs more secure.

    1 2 3 4 5 6 7

Disagree   Agree

23. My Union/Professional Organisation cares about my opinions and values my contribution.

    1 2 3 4 5 6 7

Disagree   Agree

24. I feel little loyalty to my Union/Professional Organisation.

    1 2 3 4 5 6 7

Disagree   Agree

25. My Union/Professional Organisation ignores my best interests which it makes decisions that affect me.

    1 2 3 4 5 6 7

Disagree   Agree

26. I tell my friends that the Union/Professional Organisation is a great organisation to be a member of.

    1 2 3 4 5 6 7

Disagree   Agree

27. A typical manager is often more understanding of staff problems than Union/Professional Organisation representatives.

1 2 3 4 5 6 7
Disagree   Agree

28. There is a lot to be gained by joining the Union/Professional Organisation.

1 2 3 4 5 6 7
Disagree   Agree

29. Ordinary health care workers still have greater job security than most managers.

1 2 3 4 5 6 7
Disagree   Agree

30. The Union's/Professional Organisation's problems are my problems.

1 2 3 4 5 6 7
Disagree   Agree

31. Management and Unions/Professional Organisations are really on the same side in this Trust.

1 2 3 4 5 6 7
Disagree   Agree

32. As long as I am doing the kind of work I enjoy, it does not matter if I belong to a Union/Professional Organisation.

1 2 3 4 5 6 7
Disagree   Agree

33. Given the opportunity, my Union/Professional Organisation would take advantage of me.

1 2 3 4 5 6 7
Disagree   Agree

34. I hardly ever mention to others that I am a member of the Union/Professional Organisation.

1 2 3 4 5 6 7
Disagree   Agree

35. Members of the Union/Professional Organisation care more about providing good quality patient/client services than managers.

1 2 3 4 5 6 7
Disagree   Agree

36. Very little that the membership wants has any real importance to the Union/Professional Organisation.

1 2 3 4 5 6 7
Disagree   Agree

37. Management is often aloof and remote from the day-to-day activity.

1 2 3 4 5 6 7
Disagree   Agree

38. The Union/Professional Organisation has considerable influence in ensuring good management practice.

1 2 3 4 5 6 7
Disagree   Agree

39. NHS managers get better pay awards than ordinary health care workers.

1 2 3 4 5 6 7
Disagree   Agree

40. The member does *not* get enough benefits for the money taken by the Union/Professional Organisation for subscription fees.

1 2 3 4 5 6 7
Disagree   Agree

41. Working conditions have improved a lot since the NHS reforms.

Disagree 1 2 3 4 5 6 7 Agree

42. Lower graded employees are exploited by management.

Disagree 1 2 3 4 5 6 7 Agree

43. I plan to be a member of my Union/Professional Organisation as long as I continue doing this work.

Disagree 1 2 3 4 5 6 7 Agree

44. The benefits derived from being in the Union/ Professional Organisation far outweigh the costs.

Disagree 1 2 3 4 5 6 7 Agree

45. Unions/Professional Organisations do very little to ensure that employees are treated fairly.

Disagree 1 2 3 4 5 6 7 Agree

46. My Union/Professional Organisation shows very little concern for me.

Disagree 1 2 3 4 5 6 7 Agree

47. If I want to evaluate the Union/Professional Organisation, I compare it with how it was doing in the past.

Disagree 1 2 3 4 5 6 7 Agree

48. Even if the Union/Professional Organisation is not doing well, it is important to stick together.

Disagree 1 2 3 4 5 6 7 Agree

49. Being in the Union/Professional Organisation means there are specific expectations as to how one should behave.

Disagree 1 2 3 4 5 6 7 Agree

50. Others in the Union/Professional Organisation do *not* help me to feel good about myself.

Disagree 1 2 3 4 5 6 7 Agree

51. When I am with other members of the Union/ Professional Organisation, I always have fun.

Disagree 1 2 3 4 5 6 7 Agree

52. Other members of the Union/Professional Organisation have *not* really helped me to understand myself better.

Disagree 1 2 3 4 5 6 7 Agree

53. I am better than some others in the Union/ Professional Organisation.

Disagree 1 2 3 4 5 6 7 Agree

54. I often compare the Union/Professional Organisation to other groups.

Disagree 1 2 3 4 5 6 7 Agree

55. The ideas of other members of the Union/
Professional Organisation do *not* influence
me much.

                                                   1 2 3 4 5 6 7
  Disagree   Agree

56. It is important for me to be a member of the
Union/Professional Organisation

1 2 3 4 5 6 7
Disagree   Agree

57. The Union/Professional Organisation does
not give me a sense of belonging.

1 2 3 4 5 6 7
Disagree   Agree

58. I seldom validate my opinions by comparing them
with those of others in the Union/Staff Association.

1 2 3 4 5 6 7
Disagree   Agree

59. I am often aware of how similar I am to most
other people in the Union/Professional Organisation,
and of how different we are from other groups.

1 2 3 4 5 6 7
Disagree   Agree

60. I can help others by staying in the Union/
Professional Organisation.

1 2 3 4 5 6 7
Disagree   Agree

61. My understanding of people has improved by being
a member of the Union/Professional Organisation.

1 2 3 4 5 6 7
Disagree   Agree

62. What I achieve is not only the result of my efforts but
also depends on the contribution of others in the
Union/Professional Organisation.

1 2 3 4 5 6 7
Disagree   Agree

63. When I am in this group, I do *not* often think of what
a typical member would do in this situation.

1 2 3 4 5 6 7
Disagree   Agree

64. I would be better off materially if I did *not* belong
to the Union/Professional Organisation.

1 2 3 4 5 6 7
Disagree   Agree

65. I make excuses for being a member of the
Union/Professional Organisation.

1 2 3 4 5 6 7
Disagree   Agree

66. Some others in the Union/Professional
Organisation are worse than I am.

1 2 3 4 5 6 7
Disagree   Agree

67. Working with others in the Union/Professional
Organisation is more trouble than it is worth.

1 2 3 4 5 6 7
Disagree   Agree

68. I find it difficult to express my feelings to others
in the Union/Professional Organisation.

1 2 3 4 5 6 7
Disagree   Agree

69. I do not have a clear idea of what the typical
    attributes of a member of the Union/Professional   1 2 3 4 5 6 7
    Organisation are.   Disagree   Agree

70. The only way for us to achieve something is by being   1 2 3 4 5 6 7
    a member of the Union/Professional Organisation.   Disagree   Agree

71. As a member of the Union/Professional Organisation,   1 2 3 4 5 6 7
    I do *not* feel useful.   Disagree   Agree

72. I feel close links with other members of the   1 2 3 4 5 6 7
    Union/Professional Organisation.   Disagree   Agree

73. It is by comparing my opinions with those of others
    in the Union/Professional Organisation that I   1 2 3 4 5 6 7
    understand things better.   Disagree   Agree

74. I do *not* think it is necessary to do as members   1 2 3 4 5 6 7
    of my Union/Professional Organisation prefer.   Disagree   Agree

75. What we achieve by staying in the Union/
    Professional Organisation is actually less than   1 2 3 4 5 6 7
    what I could do on my own.   Disagree   Agree

76. In the Union/Professional Organisation, we do   1 2 3 4 5 6 7
    what we can to help each other.   Disagree   Agree

77. I am glad to be a member of the Union/   1 2 3 4 5 6 7
    Professional Organisation.   Disagree   Agree

78. There is a sense of community and unity in the   1 2 3 4 5 6 7
    Union/Professional Organisation.   Disagree   Agree

79. There are absolute standards by which the Union/   1 2 3 4 5 6 7
    Professional Organisation can be evaluated.   Disagree   Agree

80. Being a member of the Union/Professional   1 2 3 4 5 6 7
    Organisation gives me an opportunity to do   Disagree   Agree
    something for its members.

81. Some of the benefits I have come from the fact   1 2 3 4 5 6 7
    that I am a member of the Union/Professional   Disagree   Agree
    Organisation.

82. I have *not* gained much self-insight from the others in   1 2 3 4 5 6 7
    the Union/Professional Organisation.   Disagree   Agree

83. I sometimes try to hide belonging to the   1 2 3 4 5 6 7
    Union/Professional Organisation.   Disagree   Agree

84. As a result of belonging to the Union/Professional   1 2 3 4 5 6 7
    Organisation I feel more self-confident.   Disagree   Agree

85. I see others in the Union/Professional Organisation
    mainly as members of the same group rather than   1 2 3 4 5 6 7
    as separate individuals.   Disagree   Agree

86. It is *not* possible to assess the Union's/Professional
    Organisation's achievements without comparing   1 2 3 4 5 6 7
    them with those of other groups.   Disagree   Agree

87. In the Union/Professional Organisation we do *not*   1 2 3 4 5 6 7
    work together very well.   Disagree   Agree

88. I cannot say what I really think to other members of   1 2 3 4 5 6 7
    the Union/Professional Organisation.   Disagree   Agree

89. I an *not* really interested to see if the Union/Professional   1 2 3 4 5 6 7
    Organisation does well or badly in comparison   Disagree   Agree
    to others.

90. I get so many rewards in the Union/Professional   1 2 3 4 5 6 7
    Organisation that it is worth staying.   Disagree   Agree

91. I criticise other members of the Union/   1 2 3 4 5 6 7
    Professional Organisation.   Disagree   Agree

92. Other members of the Union/Professional
    Organisation have *not* increased my ability   1 2 3 4 5 6 7
    to get along with people.   Disagree   Agree

93. I am *not* doing better compared to others in the   1 2 3 4 5 6 7
    Union/Professional Organisation.   Disagree   Agree

94. I do *not* enjoy myself much with people in the   1 2 3 4 5 6 7
    Union/Professional Organisation.   Disagree   Agree

THANK YOU FOR YOUR HELP WITH THIS!

APPENDIX F

Manipulation of identification function study

INSTRUCTIONS

What we ask you to do in the next few minutes is to read the following extract from a newspaper article published in a national newspaper on the 2nd of October; we are thinking of incorporating some material relating to this issue into a guide for prospective psychology students to be published next year.

What we ask you to do is to compose a brief statement of your own expressing the idea that *"being a psychology student gives you many opportunities to get to know more about yourself and the way you interact with other people"* , so that we can include it in the handbook. It is in fact important, we believe, that school leavers get all the relevant information about the subject they hope to study at university.

So, read the extract from the article and then write your statement on the sheet provided. One or more of the statements produced here today will be selected by two members of staff later on this term for inclusion in the guide.

If you think that you have been a Psychology student too short a time, don't worry; you should just describe what you think or imagine these feelings and emotions are like.

First, though, please fill in your RPS number

here........................

(Remember, you RPS number is your day of birth, your month of birth and your initials)

Psychology: The passport to success

BPS report finds that Psychology graduates do best on the job market

Once upon a time being a Psychology student meant quoting Sigmund Freud or running rats in mazes.

But Psychology students nowadays are a different breed altogether. According to a BPS survey just published, Psychology students have just the kind of knowledge and skills that employers are looking for. Because they are trained to think scientifically and have sophisticated statistical skills, Psychology students are in high demand when they leave university.

Recent graduate employment statistics put Psychology near the top of the league when it comes to finding a job and the size of the first pay cheque.

According to the report, knowledge of psychological processes and the ability to write clearly and accurately, give most Psychology students clear advantages in the job hunt in the public sector and business.

Psychology: The passport to serenity

BPS report finds Psychology students better at judging themselves and others

Once upon a time being a Psychology student meant quoting Sigmund Freud or running rats in mazes.

But Psychology students nowadays are a different breed altogether. .

According to a BPS survey just published,. Psychology students have above average insight into themselves and are more open in their dealings with others.

Because they are trained to think psychologically and have sophisticated observational skills, Psychology students score high on scales of self understanding and report above

Recent mental health statistics put Psychology near the top of the league when it comes to coping with stress and forming stable relationships.

According to the report, knowledge of psychological processes and the ability to think clearly and accurately give most psychology students a clear insight into themselves and their relationships with others.

Now use your own words to complete the following sentence:

being a psychology student gives you many opportunities to get to know more about yourself and the way you interact with other people because...............

_____

_____

_____

_____

1. I make excuses for being a Psychology student

1	2	3	4	5	6	7
strongly disagree						strongly agree

2. I am glad to be a Psychology student

1	2	3	4	5	6	7
strongly disagree						strongly agree

3. It is important for me to be a Psychology student

1	2	3	4	5	6	7
strongly disagree						strongly agree

4. I feel close links with other Psychology students

1	2	3	4	5	6	7
strongly disagree						strongly agree

5. I criticize other Psychology students

1	2	3	4	5	6	7
strongly disagree						strongly agree

6. I sometimes try to hide being a psychology student

1	2	3	4	5	6	7
strongly disagree						strongly agree

Now we would like to know your opinion about another important issue concerning the department. Recently the university has announced the possibility of an extra £85,000 available for next year's budgeting. It has also been suggested that Psychology and Accountancy are considered the two subjects in most need for the additional resources in view of their high student/staff ratios. The University has proposed various options for dividing the money between the two departments (these are listed below). The head of Psychology department is interested in knowing which one of these his department is most in favour of, so that he can represent the views of his department when negotiating in a forthcoming meeting.

Can you please put a cross on the box containing the distribution that you think is the one our department should argue for ?

To Psychology:	29,750 and 55,250	34,000 and 51,000	38,250 and 46,750	42,500 and 42,500	46,750 and 38,250	51,000 and 34,000	55,250 and 29,750

To Accountancy:

According to how the money will be divided and used, this might imply the sharing of some areas (e.g. common room facilities, study areas, shared computing labs, etc.) all making for closer contact between Psychology and Accountancy students. In this direction, the Accountancy department has raised the possibility of some shared volunteer service to facilitate students with particular disabilities to carry out some specific activities. For example, one idea might be that students could assist their peers with visual or physical disabilities in various ways (e.g. assistance in library catalogue consultation, data inputting).

If asked, how many hours do you think realistically that you could spare to help Accountancy students with disabilities:

(0)   (1/2)   (1)   (1½)   (2)   (2 ½)   (3)   hours per week

A TYPICAL STUDENT IN PSYCHOLOGY IS....

good in communication skills	1	2	3	4	5	6	7	bad in communication skills
warm	1	2	3	4	5	6	7	cold
scientifically not well trained	1	2	3	4	5	6	7	scientifically well trained
insensitive	1	2	3	4	5	6	7	perceptive
active	1	2	3	4	5	6	7	passive
impatient	1	2	3	4	5	6	7	patient
ill at ease with people	1	2	3	4	5	6	7	at ease with people
empathic	1	2	3	4	5	6	7	unempathic
desirable	1	2	3	4	5	6	7	undesirable
strong	1	2	3	4	5	6	7	weak

A TYPICAL STUDENT IN ACCOUNTANCY IS....

good in communication skills	1	2	3	4	5	6	7	bad in communication skills
warm	1	2	3	4	5	6	7	cold
scientifically not well trained	1	2	3	4	5	6	7	scientifically well trained
insensitive	1	2	3	4	5	6	7	perceptive
active	1	2	3	4	5	6	7	passive
impatient	1	2	3	4	5	6	7	patient
ill at ease with people	1	2	3	4	5	6	7	at ease with people
empathic	1	2	3	4	5	6	7	unempathic
desirable	1	2	3	4	5	6	7	undesirable
strong	1	2	3	4	5	6	7	weak

How much do you think you....

1.....would like to cooperate with accountancy students in a joint student campaign

1	2	3	4	5	6	7
not at all						very much

2.....are curious to know something more about accountancy students

1	2	3	4	5	6	7
not at all						very much

3.....like accountancy students

1	2	3	4	5	6	7
not at all						very much

4.....would be irritated to work with other accountancy students

1	2	3	4	5	6 ,	7
not at all						very much

5. .....admire accountancy students' characteristics

1	2	3	4	5	6	7
not at all						very much

6. .....would be keen to socialize with accountancy students

1	2	3	4	5	6	7
not at all						very much

Concentrate on how you feel right now: how important to you personally is each of the following aspects of being a Psychology student ?

being a *Psychology student* .....

.....I benefit from some material rewards that wouldn't be available to me otherwise

   1   2   3   4   5   6   7

not at all   very
important   important

.....it is difficult to work with others and to feel close to them

   1   2   3   4   5   6   7

not at all   very
important   important

.... I have someone from my same group to compare to

   1   2   3   4   5 ·   6   7

not at all   very
important   important

.... I can understand myself better and learn more about the way I personally interact with
other people

   1   2   3   4   5   6   7

not at all   very
important   important

.... I can see myself similar to others in this group and different from those in a different
group

   1   2   3   4   5   6   7

not at all   very
important   important

Similarly to what we asked you a few pages before, now:

Imagine 50 Psychology students were asked to take this decision. Write a number above each box to show how many of the 50 Psychology students would circle each one. NB The total must add up to 50.

							50
....	....	....	....	....	....	....	

To Psychology:

29,750 and 55,250	34,000 and 51,000	38,250 and 46,750	42,500 and 42,500	46,750 and 38,250	51,000 and 34,000	55,250 and 29,750

To Accountancy:

Imagine 50 Accountancy students were asked to take this decision. Write a number above each box to show how many of the 50 Accountancy students would circle each one. NB The total must add up to 50.

							50
....	....	....	....	....	....	....	

To Psychology:

29,750 and 55,250	34,000 and 51,000	38,250 and 46,750	42,500 and 42,500	46,750 and 38,250	51,000 and 34,000	55,250 and 29,750

To Accountancy:

when Psychology students make their decisions, to what extent will they:

1. Recommend as much as possible for:

1	2	3	4	5	6	7
Their own Department						The other Department

2. Consider the issue carefully and make a reasonable recommendation

1	2	3	4	5	6	7
not at all						very much

3. Tend to think of the relationship with the other department:

1	2	3	4	5	6	7
In cooperative terms						In competitive terms

4. Feel supportive toward Psychology

1	2	3	4	5	6	7
not at all						very much

5. Feel supportive toward Accountancy

1	2	3	4	5	6	7
not at all						very much

when Accountancy students make their decisions, to what extent will they:

1. Recommend as much as possible for:

1	2	3	4	5	6	7
Their own Department						The other Department

2. Consider the issue carefully and make a reasonable recommendation

1	2	3	4	5	6	7
not at all						very much

3. Tend to think of the relationship with the other department:

1	2	3	4	5	6	7
In cooperative terms						In competitive terms

4. Feel supportive toward Psychology

1	2	3	4	5	6	7
not at all						very much

5. Feel supportive toward Accountancy

1	2	3	4	5	6	7
not at all						very much

In the next pages we ask some questions about yourself as a Psychology student.

We are aware that you have been part of this department only short time. However it is important for us to know how do you think and feel about different aspects of being a Psychology student. Obviously your answers will remain anonymous and will be used only to get a general sense of what the group as a whole thinks.

What follows is a series of statement about the group of *Psychology students*. You have to circle a number to say how much you agree (7) or disagree (1) with each statement.

1. If I want to evaluate Psychology students, I compare them with how they were doing in the past

    1 disagree 2 3 4 5 6 7 agree

2. Even if Psychology students are not doing well, it is important to stick together

    1 disagree 2 3 4 5 6 7 agree

3. Being a Psychology student means there are specific expectations as to how one should behave

    1 disagree 2 3 4 5 6 7 agree

4. Other Psychology students do not help me to feel good about myself

    1 disagree 2 3 4 5 6 7 agree

5. When I am with other Psychology students I always have fun

    1 disagree 2 3 4 5 6 7 agree

6. Other Psychology students have not really helped me to understand myself better

    1 disagree 2 3 4 5 6 7 agree

7. I am better than some other Psychology students

    1 disagree 2 3 4 5 6 7 agree

8. I often compare Psychology students with other groups

    1 disagree 2 3 4 5 6 7 agree

9. The ideas of other Psychology students don't influence me much

    1 disagree 2 3 4 5 6 7 agree

10. This group does not give me a sense of belonging

    1 disagree 2 3 4 5 6 7 agree

11. I seldom validate my opinions by comparing them with those of other Psychology students

    1 disagree 2 3 4 5 6 7 agree

12. I am often aware of how similar I am to most Psychology students and of how different we are from other groups

    1 disagree 2 3 4 5 6 7 agree

13. I can help others by being a Psychology student

    1 disagree 2 3 4 5 6 7 agree

14. My understanding of people has improved by being a Psychology student

    1 disagree 2 3 4 5 6 7 agree

15. What I achieve is not only the result of my efforts but also depends on the contribution of other Psychology students

    1 disagree 2 3 4 5 6 7 agree

16. When I am in this group I don't often think of what a typical Psychology student would do in this situation

    1 disagree 2 3 4 5 6 7 agree

17. I would be better off materially if I wasn't a Psychology student

    1 disagree 2 3 4 5 6 7 agree

18. Some other Psychology students are worse than I am

    1 disagree 2 3 4 5 6 7 agree

19. Working with other Psychology students is more trouble than it is worth

    1 disagree 2 3 4 5 6 7 agree

20. I find it difficult to express my feelings to other Psychology students

    1 disagree 2 3 4 5 6 7 agree

21. I do not have a clear idea of what the typical attributes of a Psychology student are

    1 disagree 2 3 4 5 6 7 agree

22. The only way for us to achieve something is by being a Psychology student

    1 disagree 2 3 4 5 6 7 agree

23. As a Psychology student I don't feel useful

1 2 3 4 5 6 7
disagree agree

24. It is by comparing my opinions with those of other Psychology students that I understand things better

1 2 3 4 5 6 7
disagree agree

25. I don't think it is necessary to do as Psychology students prefer

1 2 3 4 5 6 7
disagree agree

26. What we achieve by being Psychology students is actually less than what I could do on my own

1 2 3 4 5 6 7
disagree agree

27. In this group we do what we can to help each other

1 2 3 4 5 6 7
disagree agree

28. There is a sense of community and unity in this group

1 2 3 4 5 6 7
disagree agree

29. There are absolute standards by which Psychology students can be evaluated

1 2 3 4 5 6 7
disagree agree

30. Being a Psychology student gives me an opportunity to do something for its members

1 2 3 4 5 6 7
disagree agree

31. Some of the benefits I have come from the fact that I am Psychology student

1 2 3 4 5 6 7
disagree agree

32. I have not gained much self insight from other Psychology students

1 2 3 4 5 6 7
disagree agree

33. As a result of being a Psychology student I feel more self confident

1 2 3 4 5 6 7
disagree agree

34. I see other Psychology students mainly as members of the same group rather than as separate individuals

1 2 3 4 5 6 7
disagree agree

35. It is not possible to assess Psychology students' achievements without comparing them with those of other groups

1 2 3 4 5 6 7
disagree agree

36. We Psychology students do not work together very well

1 2 3 4 5 6 7
disagree agree

37. I cannot say what I really think to other Psychology students

1 2 3 4 5 6 7
disagree agree

38. I am not really interested to see if Psychology students do well or badly in comparison to others

1 2 3 4 5 6 7
disagree agree

39. I get so many rewards as a Psychology student that it is worth staying

1 2 3 4 5 6 7
disagree agree

40. Other Psychology students have not increased my ability to get along with people

1 2 3 4 5 6 7
disagree agree

41. I am not doing better compared to other Psychology students

1 2 3 4 5 6 7
disagree agree

42. I do not enjoy myself much with other Psychology students

1 2 3 4 5 6 7
disagree agree

43. I identify with other Psychology students and their goals

1 2 3 4 5 6 7
disagree agree

44. There are Psychology students with whom I could have a romantic relationship

1 2 3 4 5 6 7
disagree agree

45. I like to challenge people who are not Psychology students

1 disagree 2 3 4 5 6 7 agree

46. Psychology students show their concern for one another

1 disagree 2 3 4 5 6 7 agree

47. Even though I am a Psychology student I do not particularly connected to other Psychology students

1 disagree 2 3 4 5 6 7 agree

48. Psychology students listen to each other's ideas and/or problems

1 disagree 2 3 4 5 6 7 agree

49. Some Psychology students are failing to make progress and/or adapt

1 disagree 2 3 4 5 6 7 agree

50. I experience feelings of competitiveness between Psychology students and other groups

1 disagree 2 3 4 5 6 7 agree

51. Some Psychology students complain about their situation

1 disagree 2 3 4 5 6 7 agree

52. As a Psychology student, I am involved with other Psychology students

1 disagree 2 3 4 5 6 7 agree

53. Psychology students have helped me understand my feelings

1 disagree 2 3 4 5 6 7 agree

54. Psychology students do favors for each other

1 disagree 2 3 4 5 6 7 agree

55. Being a Psychology student gives me the opportunity to compete with other groups

1 disagree 2 3 4 5 6 7 agree

56. I am respected by other Psychology students.

1 disagree 2 3 4 5 6 7 agree

57. I would be proud to be identified as a Psychology student

1 disagree 2 3 4 5 6 7 agree

58. There are Psychology students with whom I might get sexually involved

1 disagree 2 3 4 5 6 7 agree

59. Because of other Psychology students I can communicate better

1 disagree 2 3 4 5 6 7 agree

60. Other Psychology students value me for who I am

1 disagree 2 3 4 5 6 7 agree

61. Overall, I often think that being a Psychology student is not worthwhile

1 disagree 2 3 4 5 6 7 agree

62. A romance with another Psychology student is possible

1 disagree 2 3 4 5 6 7 agree

63. As a Psychology student. I actively compete with other groups

1 disagree 2 3 4 5 6 7 agree

64. Being a Psychology student does not involve me with other Psychology students

1 disagree 2 3 4 5 6 7 agree

65. I would define myself as a full fledged Psychology student

1 disagree 2 3 4 5 6 7 agree

66. I feel good about being a Psychology student

1 disagree 2 3 4 5 6 7 agree

67. In general, others respect Psychology students

1 disagree 2 3 4 5 6 7 agree

APPENDIX G

Longitudinal observation of identification functions

In the pages of this questionnaire you will find a series of statements with which you can agree or disagree to a certain extent. To express your opinion, you have to circle the number that best corresponds to your level of agreement with that statement.

The first part of the questionnaire refers to the group of people that are "addicts" to any sort of substance or behavior. Fill in those pages by thinking about such group.

The second part of the questionnaire instead refers to a smaller group: the group of your peers here at the '   . Answer the question in that section referring to such group.

Name:
Date:

Answer the following questions by circling the number that best corresponds to your experience in the last 2 or 3 weeks

---

1. I make excuses for being an addict

1	2	3	4	5	6	7
not at all						very much

---

2. I am glad to be an addict

1	2	3	4	5	6	7
not at all						very much

---

3. It is important for me to be an addict

1	2	3	4	5	6	7
not at all						very much

---

4. I feel close links with other addicts

1	2	3	4	5	6	7
not at all						very much

---

5. I distance myself from other addicts

1	2	3	4	5	6	7
not at all						very much

---

6. I sometimes try to hide being an addict

1	2	3	4	5	6	7
not at all						very much

For each statement circle the number that best corresponds to your level of agreement with it.

Remember, the group you have to refer to is that of your peers here at the

1. I can help others by staying in this group	1 disagree	2	3	4	5	6	7 agree
2. In this group we do not work together very well	1 disagree	2	3	4	5	6	7 agree
3. Other members of this group do not really help me to understand myself better	1 disagree	2	3	4	5	6	7 agree
4. I make excuses for being a member of this group	1 disagree	2	3	4	5	6	7 agree
5. Some others in this group are doing worse than I am	1 disagree	2	3	4	5	6	7 agree
6. Others in this group do not help me to feel good about myself	1 disagree	2	3	4	5	6	7 agree
7. I am glad to be part of this group	1 disagree	2	3	4	5	6	7 agree
8. This group does not give me a sense of belonging	1 disagree	2	3	4	5	6	7 agree
9. I get so many material rewards in this group that it is worth staying	1 disagree	2	3	4	5	6	7 agree
10. In this group we do what we can to help each other	1 disagree	2	3	4	5	6	7 agree
11. I do not enjoy myself very much with people in this group	1 disagree	2	3	4	5	6	7 agree
12. I would be better off materially if I didn't belong to this group	1 disagree	2	3	4	5	6	7 agree
13. To judge this group it is not necessary to make comparisons with other groups	1 disagree	2	3	4	5	6	7 agree
14. As a member of this group I feel useless	1 disagree	2	3	4	5	6	7 agree
15. I feel more self confident as a result of belonging to this group	1 disagree	2	3	4	5	6	7 agree
16. It is important for me to be a member of this group	1 disagree	2	3	4	5	6	7 agree

17. Being a member of this group gives me an opportunity to do something for its members

1 disagree   2   3   4   5   6   7 agree

18. I see my peers more as members of the same group rather than as individuals

1 disagree   2   3   4   5   6   7 agree

19. Some of the material benefits I have come from the fact that I am a member of this group

1 disagree   2   3   4   5   6   7 agree

20. I am not really interested to see if this group does well or badly in comparison to others

1 disagree   2   3   4   5   6   7 agree

21. There is a sense of community and unity in this group

1 disagree   2   3   4   5   6   7 agree

22. I seldom compare my opinions with those of others in this group

1 disagree   2   3   4   5   6   7 agree

23. I feel close links with other members of this group

1 disagree   2   3   4   5   6   7 agree

24. I am often aware of how similar I am to most other people in this group and of how different we are from other groups

1 disagree   2   3   4   5   6   7 agree

25. Working with others in this group is more trouble than it is worth

1 disagree   2   3   4   5   6   7 agree

26. I criticize other members of this therapy group

1 disagree   2   3   4   5   6   7 agree

27. It is not possible to assess this group's achievements without comparing them with those of other groups

1 disagree   2   3   4   5   6   7 agree

28. This group defines itself in comparison to similar groups

1 disagree   2   3   4   5   6   7 agree

29. I am doing better than some others in this group

1 disagree   2   3   4   5   6   7 agree

30. I sometimes try to hide being a member of this group

1 disagree   2   3   4   5   6   7 agree

31. I often compare this group with other groups

1 disagree   2   3   4   5   6   7 agree

32. I find it difficult to express my feelings to others in this group

1 disagree   2   3   4   5   6   7 agree

In every page of this last section of the questionnaire you will find 6 pairs of adjectives separated by 7 numbers. What you have to do is to circle the number that expresses your opinion about how much that characteristic describes the concept at the top of the page.

a USING ADDICT is......

Undesirable	1	2	3	4	5	6	7	Desirable
Unattractive	1	2	3	4	5	6	7	Attractive
Strong	1	2	3	4	5	6	7	Weak
Bad	1	2	3	4	5	6	7	Good
In control of self	1	2	3	4	5	6	7	Not in control of self
Active	1	2	3	4	5	6	7	Passive

an ADDICT IN RECOVERY is......

Undesirable	1	2	3	4	5	6	7	Desirable
Unattractive	1	2	3	4	5	6	7	Attractive
Strong	1	2	3	4	5	6	7	Weak
Bad	1	2	3	4	5	6	7	Good
In control of self	1	2	3	4	5	6	7	Not in control of self
Active	1	2	3	4	5	6	7	Passive

a NON ADDICT is......

Undesirable	1	2	3	4	5	6	7	Desirable
Unattractive	1	2	3	4	5	6	7	Attractive
Strong	1	2	3	4	5	6	7	Weak
Bad	1	2	3	4	5	6	7	Good
In control of self	1	2	3	4	5	6	7	Not in control of self
Active	1	2	3	4	5	6	7	Passive

THE   RECOVERY CENTER is......

Undesirable	1	2	3	4	5	6	7	Desirable
Unattractive	1	2	3	4	5	6	7	Attractive
Strong	1	2	3	4	5	6	7	Weak
Bad	1	2	3	4	5	6	7	Good
In control	1	2	3	4	5	6	7	Not in control
Active	1	2	3	4	5	6	7	Passive

ANOTHER TREATMENT CENTER YOU ARE FAMILIAR WITH is......

Undesirable	1	2	3	4	5	6	7	Desirable
Unattractive	1	2	3	4	5	6	7	Attractive
Strong	1	2	3	4	5	6	7	Weak
Bad	1	2	3	4	5	6	7	Good
In control of self	1	2	3	4	5	6	7	Not in control of self
Active	1	2	3	4	5	6	7	Passive