SOCIAL IDENTITY, SELF-AWARENESS AND INTERGROUP BEHAVIOUR

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ABSTRACT

Self-awareness theory and social identity theory both concern the impact of the self-concept on behaviour. Self-awareness theory addresses the process of individual self-regulation in terms of private and public standards. Self-focused attention increases the influence of these standards. Social identity theory presumes that the self can be defined in terms of social category membership. Intergroup behaviour ensues when these social identifications are salient. It is theorised that the public/private self-focus and social/personal identity distinctions are orthogonal. Focus on the private aspects of self may include a social identification and lead to intergroup behaviour.

Fenigstein, Scheier and Buss' (1975) Self-Consciousness Scale is assessed and discriminates reliably between private and public self-consciousness. The first experiments reveal no impact of self-awareness manipulations on intergroup ratings. In the next experiment, increased attention to social categorisation raises the amount and consistency of discrimination. The finding that private, but not public, self-focus reinforces social identification under relevant conditions also emerges in the next study.

Different standards for 'public' behaviour may prevail when different audiences observe, and 'private' standards may depend on identification with the group. In an experiment testing these propositions identification is accurately reflected only to an ingroup audience - a result which is replicated. In the final experiment, video feedback with an ingroup audience minimises, whereas that without maximises, ingroup bias, due to variations in the impact of different aspects of identity. Ingroup bias reflects identification only when private self-consciousness is high or public self-consciousness is low. Across experiments self-esteem reliably affects intergroup behaviour, and referent informational, rather than normative, influence predominates.

The social identification and self-awareness approaches are each enriched by the other. A model of identification in group contexts and the view that behaviour may serve self-preserving motives are proposed. The conceptual and empirical ambiguity between 'salience' and 'attention' remain to be resolved.

These cognitive factors in intergroup behaviour may not have simple effects because other, social, factors, exert influences to alter their impact.

DEDICATION

To my father, Philip Abrams, and to my stepfather, Brian Jackson, for their gifts of confidence, encouragement and love.

MEMORANDUM

The research for this dissertation was conducted whilst the author was a postgraduate research student on a Social Science Research Council Quota award at the University of Kent at Canterbury (October 1980-December 1982). The major part of the written work was completed whilst the author was a temporary lecturer in the Department of Psychology at the University of Bristol (from October 1983).

The theoretical and 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 (other than where specified) was limited to assisting in aspects of the procedure, such as distributing and collecting experimental materials and in certain cases administering experimental instructions.

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

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LIST OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

INTRODUCTION

> 'Social consciousness, or awareness, is inseparable from self-consciousness, because we can hardly think of ourselves excepting with reference to a social group of some sort, or of a group except with reference to ourselves' (C.H. Cooley, 1902, p. 5).

The aim of this thesis is to raise a set of questions and to suggest some answers. The questions stem from a basic problem for social psychology: to understand how groups and individuals can coexist. In its wider sociological form this problem is how the social order is reproduced and sustained by individuals. However, the fact that society is a part of individual consciousness (Marx, 1963; Moscovici, 1972) and that social facts can determine individual acts (Durkheim, 1951) does little to help us account for variations in the way different individuals experience and express themselves within a single context. Sociological explanations also seem rather too broad when we try to explain why the same individual acts in different ways at different times.

In its narrow psychological form the problem is one of the psychological causes and consequences of group membership. If sociology regards groups (read 'society', 'culture' and 'subculture') as in some sense socialising, psychology has typically regarded them as antisocialising (McDougall, 1927). Le Bon (1897), for example, explicitly depicted crowds as being more primitive than individuals; a thesis which has gone largely unchallenged by psychologists to this day. Psychologists have characterised groups as disintegrative social forms (e.g. Singer, Brush and Lublin, 1965; Zimbardo, 1969),as sapping the will of individuals to work (Latané and Nida, 1981), as engulfing individual agency (Milgram, 1974), as reducing individual actions to a lowest common denominator -

conformity - (Asch, 1952) and merely as satisfying functional needs (Sherif, Harvey, White, Hood and Sherif, 1961). Recent emphases have cast the impact of the group on the individual in purely cognitive terms. In this formulation it is the relative size of one's subgroup which is important, due to its influence on salience; the subjective meaning of one's group membership is barely recognised as a credible determinant of behaviour (e.g. Mullen, 1983; Taylor, Fiske, Close, Anderson and Ruderman, 1979).

In both the psychological and the sociological traditions there are clear moral tones (cf. Adorno, Frenkl-Brunswick, Levinson and Sanford, 1950). The very term 'false-consciousness' accuses individuals of failing to understand the nature of their group and of society. Terms such as 'compliance', 'disinhibition' and 'diffusion of responsibility' castigate individuals for allowing social pressures in groups to affect them at all. Indeed, social psychological research has often been preoccupied with intra-individual consistency (Wicker, 1969) and with reducing the variance due to contextual factors (see Underwood and Moore, 1981). The rising eminence of theories of the 'self-concept' (Wylie, 1979), and 'self' as a causal agent (see Suls, 1982, and Wegner and Vallacher, 1980), seems also to have produced a view of individuals as autonomous objects. Individuals process 'social' information but are regarded as being independent of that information (such as knowledge of one's group membership).

In the light of these traditions it is important to recognise,first, that the 'problem' may not exist in the way it has been characterised and, second, that the questions we go on to ask often presuppose the limits of the answer. In my view the problem is one of how society and individuality come to be represented simultaneously within the same person (assuming they are) in addition to asking if or when. The

theorists mentioned above have gone on to ask whether society is good for people and vice versa, the answer being determined almost wholly by the values of the enquirer. While I cannot pretend to be value free, I shall endeavour to ask questions in a way which reduces the impact of values on the answers.

One of the more interesting attempts by social psychologists to embrace sociological thought was initiated with the publication of Duval and Wicklund's (1972) book, A Theory of Objective Self-Awareness. They set out to test empirically and justify Mead's (1934) views on the relation between self and society (see also Shrauger and Schoeneman, 1979). It was thought that, where attention could be turned towards the self (by such simple devices as a mirror), a person would be more aware of the way he or she is perceived by specific or general others. In this state a person would therefore also be more inclined to behave in line with the standards which those others might be expected to hold. Self-awareness was thereby 'socialising'. It increased the impact of society on the individual.

However, as Chapter 1 demonstrates, research on self-awareness can also be described as showing quite a different phenomenon. Self-awareness often reduced the impact of social standards and resulted in enhanced individuality (cf. Langer, 1978). At this point the break with sociology was made. Two types of self-awareness were possible (Buss, 1980; Scheier and Carver, 1981). Awareness of the private self reinforced individual independence and was bound up with identity. Awareness of the public self reinforced social desirability and self-presentation in acquiescence to social pressure. The private/public dichotomy helped to account for experimental results but lost the parsimony of Mead's theory and reintroduced the moral component, which is discussed at greater length in Chapter 3.

A completely separate branch of social psychology whose assumptions are also somewhat similar to those of symbolic interactionism is the social identity approach to intergroup relations (see Tajfel, 1978). This approach argues that social categories have their impact on individuals when they are internalised. When a person categorises him or herself as 'black' (when his or her 'blackness' is salient) a process of identification with that label ensues. Thus, social structures and intergroup relations are not simply a result of interpersonal pressure, conformity or instrumental behaviour, but rather they represent the expression of a common self-definition by a number of people. In Chapter 2 this theoretical position is presented and is subjected to criticism partly on the grounds that it posits a mutual exclusivity of 'social' and 'personal' aspects of identity. This distinction backs up one between individualist ('reductionist') theories and 'social' theories. It is argued that the former may have something to offer the social identification approach. Balance theories, equity theory and reference group theory are used to illustrate this point[1].

An important contradiction between the self-awareness and social identity approaches is raised and discussed in detail in Chapter 3. It is argued that self-awareness may be 'socialising' whether the self-definition receiving attention is idiosyncratic or is socially shared. Deindividuation and self-awareness researchers assume that self-awareness renders behaviour more morally acceptable (see Guardian article headed 'Metropolitan Police set out to train all officers in self-awareness' for lay versions of this view[2]) and less susceptible to influence from the group. Such stances are rejected and it is suggested that awareness of self-definition as a group member may actually magnify the impact of the group.

Chapter 4 describes a lengthy assessment of Fenigstein, Scheier and

Buss' (1975) Self-Consciousness Scale, which allows an operationalisation of the private/public self-attention distinction at the level of individual differences. In Chapters 5, 6 and 7 evidence is presented from five studies (using children as subjects) in order to demonstrate that focus of attention and self-attention are relevant variables in intergroup behaviour.

In Chapter 5 an investigation is carried out to reveal the natural use of social categorisation in children's self-descriptions, and to see if self-awareness manipulations affect behaviour when these categories are salient. The experiments reported in Chapter 6 delve deeper into a possible distinction between 'salience' and 'attention', and use both situational and dispositional focus of attention as factors in a minimal group paradigm. Dispositional indices are adopted once more in the experiment reported in Chapter 7 where the intergroup context is more meaningful and realistic - intergroup goal relations and similarity are also experimentally manipulated.

The remaining empirical chapters home in on some more specific problems in understanding the way that social identification may be represented in behaviour. The possibility that behaviour may not reflect identity is pursued and, in particular, the nature of intergroup self-presentation is explored. Intergroup behaviour often occurs in the psychological or physical presence of others and it is clearly important to understand how these factors may constrain or enable people to engage in overtly competitive acts. Another, equally weighty, factor is the strength (as distinct from clarity) of identification with a group, and the motivational forces at work when individuals do or do not display intergroup discrimination.

These possibilities are explored in three experiments. The first two (Chapters 8 and 9) involve sixth form public school pupils from two

schools; each being a relevant outgroup to the other. Subjects are led to believe that either ingroup, outgroup or no individuals will inspect their intergroup evaluations. This design is replicated in the laboratory, in the experiment reported in Chapter 10. In addition, situational manipulations of private and public self-awareness are introduced in order to see how self-attention and audience variables interact.

The thesis concludes by considering a range of factors and variables which are likely to operate in intergroup behaviour. Stress is laid on the possible conflicts between engaging in discrepant overt behaviours while maintaining a coherent self-concept. In addition, the distinction between 'individualistic' and 'social' social psychology (e.g. Tajfel, 1979) is scrutinised and a call made for a greater integration between the social identification perspective and others in social psychology. Thus we return to the opening problem of how society lives within individuals and how individuals can exist within society.

NOTES

1. Another criticism is that social identity theory is not able to describe intergroup relations as they actually appear in society (see Condor, 1984, for a comprehensive elaboration of this kind of argument).

2. The Guardian (13.9.84, p. 1) published a report by Aileen Ballantyne about the Policing Skills Development Course. Following the 1981 Brixton riots in London, the Scarman Report recommended that police training should include an extra 4 weeks, 'largely spent studying communication, and group and self-awareness'. This technique has been imported from the Florida police force, and includes video feedback and role-playing. Ballantyne's article concludes that the 27,000 participating officers 'will then see for themselves if they are too aggressive in their attitude, and can be counselled about this by the other people in the group'. The theory and research produced in this thesis challenge the assumption that self-awareness will necessarily have such positive effects, particularly in intergroup contexts.

CHAPTER 1

SELF-AWARENESS

OVERVIEW

The aim of this chapter is to provide an introduction to the background, theory and research on self-awareness. The self has long been acknowledged as one of the most powerful determinants of behaviour. Social scientists have been greatly preoccupied with describing its contents and enumerating its effects. The importance of adopting a distinction between the presence of a self-concept and the awareness of that concept has often been stressed by sociologists (e.g. Mead, 1934; Strauss, 1977), but it is only recently that psychologists too have incorporated it into their theories. This may have been partly a result of a need to integrate person and situation parameters in a more parsimonious way (for example, incorporating cognitive processes), and partly as a response to the rich theoretical concepts which were readily available in the writings of sociologists (e.g. Cooley, 1902; Goffman, 1959; Shibutani, 1961). After a brief introduction to the approaches to the self taken by such theorists we will come to a review of the current social psychological theories of self-awareness. Although three theoretical approaches are to be discussed, where the term 'self-awareness theory' is used it should be taken to refer to the common elements of the three, and thus will not distinguish between them. In addition, throughout this thesis the terms 'self-attention', 'self-focus', 'self-focussed attention', and 'self-awareness' will be used interchangeably to refer to the state in which a person is attending to some aspect of self.

An examination of the methodology adopted by self-awareness researchers will lead on to a critical appraisal of the findings and assumptions underlying each approach. In the final section it will

be argued that self-awareness theory suffers from possible circularity of explanation, which may in turn make prediction problematic. Its other major weakness - an excessively individualistic perspective - is introduced as a point of entry for the present research.

Early theories

The psychology of the self has, from William James's time, relied on conceptual frameworks which have divided the self into several components. For James (1890), for example, the self could be described as a combination of 'Me' (self as object, as a set of facts) and 'I' (self as experienced) components. The 'Me' can be further described as being made up of spiritual, material, social and bodily aspects; each of these being linked to feelings of self-worth and esteem - a theme which recurs in later psychological theories. Further theoretical advances were made by both psychoanalytic and sociological schools. Perhaps the most enduring of these has been Freud's (1946) conception of the tension between the id, ego and superego. However, Freud and others (e.g. Adler, 1927; Jung, 1960), while using self-examination in the therapeutic process, proposed that the self was a regulating system in both the conscious and the subconscious realms. Furthermore, the rather free way in which terms and concepts such as 'self' and 'ego' came to be used (Chein, 1944) served only to muddy the waters and prevent any systematic theory of the self from developing.

These ambiguities surrounding the nature of 'self' have continued (see Burns, 1979; Gergen, 1971), largely due to the fact that the dimensions and components of the self have repeatedly been reconceptualised, and each conceptualisation carves up the 'self-concept' in slightly different ways (e.g. Higgins, Klein and Strauman, 1984; Markus and Nurius, 1984). These ambiguities may result from attempts to define the self first as structure and <u>then</u> as process.

Since structure is often easier to describe it is tempting to start from an assumption about structure in order to investigate the process. Examples of such approaches abound (Carver and Scheier, 1981, Chapter 4; Markus, 1977), even though it is now commonly stated that the processing and structural aspects of the self operate dialectically (Bandura, 1982; Markus and Sentis, 1982). Ironically, the symbolic interactionists, on whose writings many of the social psychological approaches to self are based, argued most strongly that it was the process which should be the focus of interest.

Cooley (1902), in introducing the notion of the 'looking glass self', stressed that 'the thing that moves us to pride or shame is not the mere mechanical reflection of ourselves, but an imputed sentiment, the imagined effect of this reflection on another's mind ... the character and the weight of that other ... makes all the difference with our feeling' (p. 380). It was, however, Mead (1934) who more explicitly stated that 'the self, as that which can be an object to itself, is essentially a social structure, and it arises in social experience ... it is impossible to conceive of a self arising outside of social experience' (p. 384). His argument was that we come to symbolise ourselves using shared and socially constructed meaning (e.g. language) and that, at different times, we may acquire different self-definitions, depending on who the 'other' is. In modifying or adapting our behaviour to suit different people we are implicitly self-aware. However, as Cooley also pointed out, it is the other in mind of whom we act in respect. Mead dwells on this point in explaining how it is that the socially constructed self can still be meaningful even in the absence of others, but only after it has already been socially created. This philosophical point is at the heart of many problems which have arisen in recent self-awareness theories,

as will be discussed presently. The key point is that we may have independent and private experiences or knowledge but we only come to define those on the basis of a socially provided 'objective' conception of what those experiences are.

Along with the writing of Mead, self-awareness theorists have occasionally referred to Goffman (1959) and Shibutani (1961) as sources of legitimacy for their ideas (e.g. Scheier and Carver, 1981; Wicklund, 1982). The incorporation of the dramaturgical perspective and the importance of self-presentation (Fenigstein, 1979) and the use of reference groups (Carver and Humphries, 1981) have been indicative of self-awareness theorists' continual desire to accommodate both cognitive (Carver, 1979) and social (Wicklund, 1975) models of self. One of the attractions of self-awareness theory for social psychologists is that it does allow for both social and psychological factors to play a role in self-regulation. Furthermore, these theories suggest that a limited methodology can be adapted to examine a wide range of phenomena. Some of the major reviews of the theory have pointed to this fact as being indicative of the parsimony of the theory, but as problematic when trying to integrate the research literature in a meaningful way (cf. Buss, 1980; Carver and Scheier, 1981a; Wicklund, 1975). On other occasions the theorists have been content to address only specific applications of their approaches: to social facilitation (Carver and Scheier, 1981b); to self-definition versus self-presentation (Scheier and Carver, 1981); to the socialising impact of self-awareness (Wicklund, 1980, 1982); or the role of self-awareness in persuasibility (Roloff, 1980).

THREE VARIANTS OF SELF-AWARENESS THEORY

The present review will outline three theoretical orientations to

self-awareness (Buss, 1980; Carver, 1979; Wicklund, 1982) and evaluate the methodology which has developed from these. The review will then proceed to describe the effects of self-awareness in six areas: task performance; affect; moral behaviour; self-consistency; conformity and deindividuation. The findings will then be evaluated in terms of their interpretability, the adequacy of the conceptual framework being used by the major theorists and the gaps which still remain to be filled in their approaches.

Wicklund's self-awareness theory

The whole area of self-awareness received its first airing in social psychology with the publication of Duval and Wicklund's (1972) 'Objective Self-awareness' and several publications based on that research. They agreed, following Mead (1934) and Piaget (1966), that there are two possibilities for the focus of attention - towards the environment or towards the self (Objective Self-awareness, or OSA). To be more or less self-aware is to spend a greater or lesser amount of time attending to oneself. They further suggested that 'only when the self becomes an object of conscious awareness can self-evaluation occur. The standards he uses for evaluation may be his own personal values or else recently accepted societal standards' (Wicklund and Duval, 1971, p. 321). In this self-evaluative state, individuals are thought to become aware of a discrepancy between their behaviours and their 'standards of correctness'. Because this would typically be experienced as an unpleasant state, the individual would be motivated to close the gap between the standard attained and that aspired to. It was argued that OSA would be produced by any stimulus that reflected the individual's status as an object. Thus exposure to one's mirror image, hearing a recording of one's own voice, being confronted with an audience or with the knowledge of being filmed were all predicted to

make the individual objectively self-aware. Attention is then focussed not on the entire self-concept but on 'whatever dimension of self is most salient or dominant in that situation' (Wicklund and Frey, 1979, p. 37). Two of the central tenets of their theory are that the self-aware individual would attempt to escape his/her unpleasant state either by avoiding the self-reflective stimuli or by reducing the discrepancy.

Initial support for Wicklund's position was provided by effects of self-awareness inducement on task performance (Liebling and Shaver, 1973; Wicklund and Duval, 1971, Expt. 3). In both of these studies subjects were asked to copy as much German or Swedish prose as possible in 5 minutes. Half the subjects were alone in an empty room while the rest were alone but sat facing a mirror. In both studies mirror condition subjects copied more prose than did control subjects. The assumption was that mirror subjects were more cognisant of the discrepancy between real and ideal performance and so worked harder to reduce that discrepancy. This finding was important since it reproduced effects which had previously been attributed to the drive inducing presence of <u>others</u> (Cottrell, 1972; Zajonc, 1965).

Another strand of research during this period was the use of different standards for behaviour. For example, in Experiment 1 by Wicklund and Duval (1971) subjects did or did not hear the sound of their own voices, played back on a tape recorder, prior to answering a political attitude questionnaire. They shifted from their own prior attitudes in the direction of modal opinions which had been (arbitrarily) attributed to undergraduates in general more in the voice feedback than in the no-voice feedback condition. There was no difference in rejection of the negative reference group (of prisoners) modal opinions though. Similarly, Duval (1972) found that subjects

who were presented with video feedback of themselves conformed more to the stated modal opinions of others when assessing the number of objects in a visual field than did no-video subjects. Carver (1974, 1975) engaged subjects in a 'teaching task' using the Buss aggression machine. In the Buss paradigm a stooge learner makes a set number (in this case 35 out of 53) of errors in a recall task. It is the teacher's (subject's) responsibility to administer an electric shock (using a 10 level continuum) whenever the learner makes an error. In both of these studies half the teachers had a mirror attached to the machine facing them. However, in one (Carver, 1974) subjects were informed that higher shock levels facilitate learning, while in the other (Carver, 1975) the standard for their behaviour was to be their own attitudes to using punishment as a teaching method. In both experiments subjects in the mirror condition adhered more to the standard provided than did control condition subjects.

The other important assumption made by Wicklund and Duval was that the self-aware state is aversive. Duval, Wicklund and Fine (in Duval and Wicklund, 1972, pp. 16-20) found that subjects who had been given unfavourable feedback about their creativity-intelligence, and were then left alone in a room, subsequently left that room more quickly if it contained a mirror. Gibbons and Wicklund (1976) also found that males who had been rejected by a female confederate were less prepared to spend time listening to a tape of own <u>versus</u> other's voice than were non-rejected males.

In his 1975 review, Wicklund proposed that the first impulse would be to avoid self-focus but that if this were impossible than an attempt at discrepancy reduction would ensue. In his later approaches to self-awareness, Wicklund (1979, 1980, 1982) stresses its <u>social</u> nature more emphatically. He supports Shibutani's (1961) analysis of

the individual as a part of the social group and argues that being different (Duval, 1976) or in a disrupted situation will induce a state of self-awareness. Wicklund still suggests, however, that 'simple self-focussing devices should be added to the Shibutani method ... more generally, any symbol of the self should suffice to bring attention increasingly on to the self' (1982, p. 212). He continues to stress the potentially aversive nature of self-awareness but develops the theme of 'discrepancy' by introducing the notion of 'endpoints'. These are 'goals, ends or purposes toward which the person is behaviourally orientated' (p. 217). He argues that where a person has conflicting endpoints 'those such as emotions or strong motivational states generally take precedence over more static aspects of self (values, logical thinking)' (p. 218) (see also Wicklund, 1978; Wicklund and Frey, 1979). It follows that social pressures will only be influential in the absence of strong internal affect. This argument - one which recurs in self-awareness theory - rests on the assumption that the individual is a more potent force than the group (Wicklund, 1980), and that the two entities are psychologically discrete.

The Buss/Scheier version of self-awareness theory

A second branch of self-awareness theory has emphasised individual differences (Buss, 1980; Scheier and Carver, 1981). An attempt was made to develop a scale of dispositional self-awareness (Fenigstein, Scheier and Buss, 1975), which is termed 'self-consciousness' to distinguish it from situationally induced self-awareness. The development of this Self-consciousness Scale (SCS) is described in detail in a later chapter. For the present discussion it is sufficient to note that the SCS contains three subscales, two of which have provided the basis for a great deal of research.

Buss (1980) argues that the self can be considered to be composed of two domains - the public and the private. The simplest distinction between these domains is that, while the public self is 'entirely overt' and observable by others, the private self 'can only be observed by the experiencing person' (p. 9). The distinction between 'public' and 'private' has been adopted by most researchers in self-awareness (Carver and Scheier, 1981; Scheier and Carver, 1981), with the exception of Wicklund. Typically, in this paradigm subjects are divided into high and low scorers on the subscales of the SCS as a basis for predictions about behaviour. People who are high in private consciousness 'are presumed to be particularly attentive to their thoughts, feelings, attitudes and other private self-aspects ... [while those high in public self-consciousness] ... are especially cognisant of how they are being viewed by others in their social contexts and how those others are reacting to them' (Scheier and Carver, 1981, p. 193).

The effects of these dispositional types of self-focus have been linked with the effects of different situational manipulations. It is currently claimed that 'mirror induced self-awareness yields results comparable to selecting subjects who are high in dispositional private self-consciousness (e.g. Carver and Scheier, 1978; Scheier and Carver, 1977, 1980; Scheier, Carver and Gibbons, 1978) ... the presence of an audience ... would seem to direct attention to the public self' (Froming, Walker and Lopyan, 1982). In general, manipulations which involve evaluation or heightened salience of the public self (e.g. video feedback, audiences, etc.) are thought to induce public self-focus,while those which involve perceptual feedback and no evaluation (such as mirrors, heart rate, feedback, etc.) should induce private self-focus (Froming and Carver, 1981; Scheier and Carver, 1981).

Buss (1980) diverges from this position in so far as he distinguishes between large and small mirrors. He suggests that, while small mirrors (reflecting upper torso and face) reveal nothing new, and hence lead to private ruminations, larger and 3-sided mirrors reveal unusual aspects of ourselves,causing public self-focus.

A large proportion of research in this area has been directed towards validating the public/private distinction and using it to promote themes relating to individuality (e.g. McCormick, 1979), compliance (Froming and Carver, 1981), and ways of dealing with dissonance (Scheier and Carver, 1980). The empirical review in this chapter reflects that preoccupation,while the theoretical critique points to some of the limitations of this framework.

Since the two dispositions are independent there may be a problem in directly linking them with manipulated self-focus. Indeed, Scheier (1980) specifies that there are 4 groups of people defined by being a combination of high/low self-conscious on the two dimensions. It is those who are high in private and simultaneously low in public who will behave in a manner most similar to a subject in front of a mirror. A person who is high in public but low in private self-consciousness will be most likely to behave as if an audience is present. However, there are no clear predictions to be made about people who are high on both or low on both of the dimensions. Similar ambiguities may arise if one considers what might happen to a high private self-conscious person in an evaluative context. Buss (1980) argues that one domain will tend to take priority in any given situation, a point supported by Scheier (1980). What is still unresolved, however, is whether dispositional self-consciousness is a readiness to be made self-aware by situational factors (i.e. a threshold phenomenon) or whether it operates independently of

situational factors. These questions are resolved to a certain extent by Carver's (1979) cognitive approach to self-awareness.

Carver's self-regulation approach

Carver (1979) has concerned himself less with the particular consequences of self-awareness and more with the nature of the cognitive processes involved. The predictions which he makes are often compatible with those of other self-awareness theorists. He differs on some specific points, but is concordant on at least two major ones: first, that a discrepancy altering process is at work and, second, that attention to different standards (Wicklund's 'endpoints') underlies different behaviours. He is less interested in where those standards come from than with how they are used. While it would be fair to categorise Carver at the cognitive end of the continuum of social psychological theory, his approach is still 'social' because it deals with the application of a cognitive model to social behaviour.

In several statements (Carver, 1979; Carver and Scheier, 1981a, 1981b, 1982) Carver has advocated the use of control theory and cybernetics in the analysis of self-regulation processes. The basic element in control theory is the negative feedback loop. The commonly cited example of a negative feedback loop is a thermostat. The essential features are that an input (temperature) is sensed and compared with a 'reference signal' or standard of comparison which is set from outside the loop (the temperature set by the owner of the thermostat). This 'test' between the actual and reference signals either detects no difference (in which case no further action is needed) or a discrepancy is detected. In the latter case the mechanism 'operates' (effects a change in temperature) on the environment. The impact of this operation is monitored again at the 'test' part of the

loop. Continued modifications are made until there is no discrepancy between the detected and reference values (temperature measured = temperature set). Test-Operate-Test-Exit (TOTE) units have been used as analogies for behavioural regulation extensively by cognitive psychologists (Adams, 1976; Miller, Galanter and Pribram, 1960; Powers, 1979). They are hierarchically ordered negative feedback loops. The act of closing a door exemplifies their operation. At the top of the tree is a reference value which we may call 'Door closed'. In order to close a door one must first have contact with it so that the 'Door closed' loop sets a reference value for a movement loop which we shall call 'Walk doorwards'. That loop in turn provides the standards for the placing of each foot, and so on. Clearly, we are relatively conscious of higher order reference values (or goals) and relatively unconscious of subordinate ones - the latter operating on a much faster time scale. One important point is that higher order systems may reset the reference values for lower order ones. So, for example, in driving from Canterbury to Bristol one may either go through London or through Kingston-upon-Thames. The higher order reference value (get to Bristol) is unchanged but the subordinate ones (route, speed, etc.) may vary.

Reproduced below is Carver and Scheier's (1981b) example based on the model of hierarchical feedback loops adopted by Powers (1973). The content is the writing of a manuscript. Carver and Scheier argue that it is the Program control, Principle control and System Concepts levels which are most important for personality and social psychologists. At the Program level are essentially systems of scripted (Schank and Abelson, 1977) procedures for behaviour. An example might be the relative automativity or unquestioning nature of our behaviour while eating sandwiches, making coffee, washing up, and so on. Superordinate

to this is the level of Principles which may be reflected in the execution of many programs. Examples might be the principle of always being polite or of getting to places by the quickest possible method. Beyond and above these principles are System Concepts,which provide a degree of systematic unity to the principles. Carver and Scheier suggest that 'one important system concept ... may be the sense of integration and coherence associated with a person's ideal self. The attempt to regulate behaviour with regard to that system concept may be ... an attempt to maintain or enhance one's self-esteem' (pp. 117-119).

Figure 1

Behavioural self-regulation (example from Carver and Scheier, 1981b, pp. 116, 118)

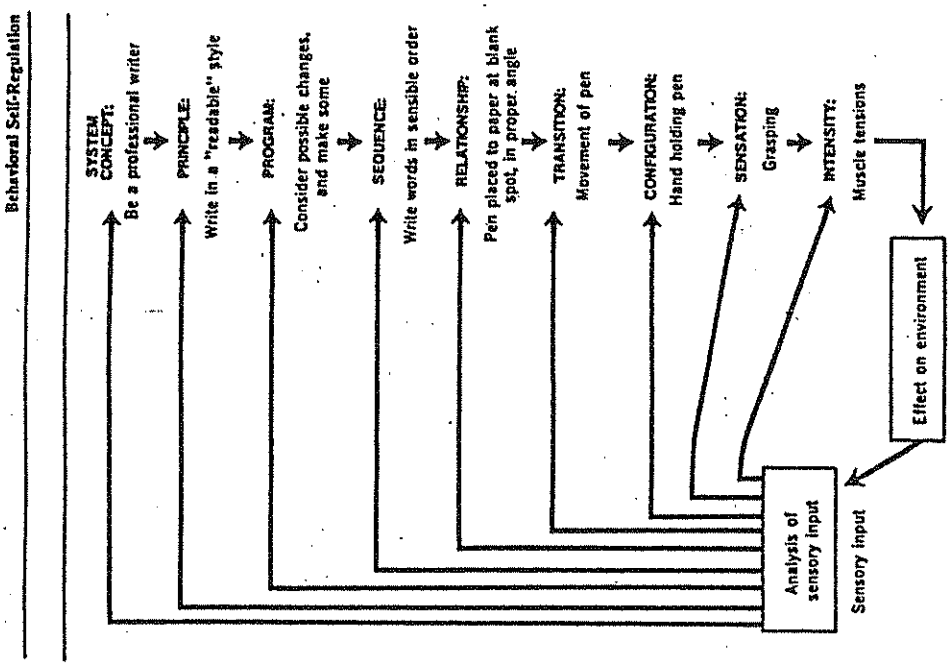

Figure 5. Diagram of the hierarchical organization implicit in the behavior of a professional writer who is revising the draft of a book chapter. This diagram provides a concrete illustration of the more abstract principles illustrated in Figure 4 (adapted from Carver & Scheier, 1981). Reprinted by permission of the publisher.

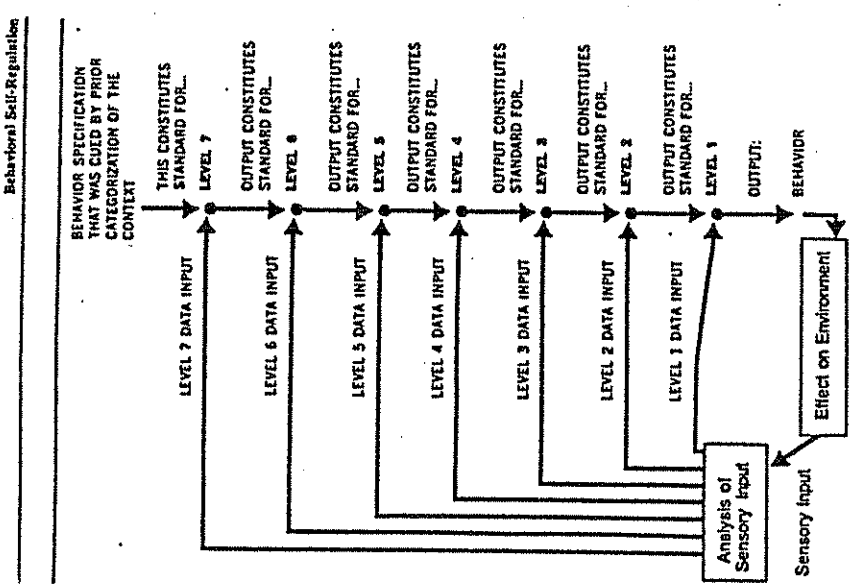

Figure 4. Diagram of a seven-level hierarchy of feedback systems. The behavioral output for each superordinate system consists of resetting the reference value for the next lower system. The output of the lowest level system is overt behavior. Goal attainment is monitored at each level by reference to perceptual input appropriate to that level (from Carver & Scheier, 1981). Reprinted by permission of the publisher.

This highly abstract account of self-regulation begins to relate back to self-awareness theory when the question of which level of control will be superordinate at any one time is raised. The answer may, in part, be that 'whatever level is being attended to is superordinate at that moment' (p. 120), while lower levels continue to self-regulate automatically and higher ones cease to be impactful until attention is redirected towards them. While any level may theoretically receive attention it tends to dwell at the Program and Principle levels. When we categorise our behavioural context (social or other) the schema that are evoked provide the superordinate behavioural reference values. Thus, when categorising a person as black or white, friendly or unfriendly, ally or foe, we are doing so with reference to an established body of knowledge (Cantor and Mischel, 1979; Hastorf, Schneider and Polefka, 1970) which may also contain information about ourselves (Markus, 1977). More importantly, these schema may provide reference values for behaviour (e.g. friendly versus unfriendly orientation) and such behaviour-specifying schema may be closely linked to specific situations (Price, 1974). For example, behaviour while spectating a football match at the ground differs markedly from that while watching one on television.

How does all this automated regulation relate to self-awareness? Carver (1979) regards self-directed attention as being the 'test' component of the feedback loop in the superordinate control system. This is the link between Carver's, Wicklund's and Buss's approaches - that it is self-directed attention which is a necessary precondition for a shift of behaviour in relation to a reference standard. While Carver and Scheier have maintained complementary research programmes they have distinguished their position from that of Wicklund in terms of their conceptualisation of motivation. In particular, they argue,

Wicklund (1979) has assumed that self-awareness involves an aversive drive state which motivates discrepancy reduction. Carver and Scheier (1981) assume neither a drive state, that discrepancies are aversive, nor that they will always be reduced. To some extent this controversy is a product of issues in social facilitation research (Cottrell, 1972; Zajonc, 1965). Wicklund certainly regards the awareness of a discrepancy as motivating (cf. Hull and Levy, 1979; Liebling, Seiler and Shaver, 1974; Wicklund and Duval, 1971; Wicklund and Hormuth, 1981) but not as being a drive state. Another difference is that, whereas Wicklund regards avoidance of self-focus as the prepotent response and discrepancy reduction as the next alternative, Carver and Scheier consider the 'matching to standard' sequence to be prepotent. If the expectancy of successfully reducing the discrepancy is high then self-focus leads to increased attempts to do just that. On the other hand, if expectancies are unfavourable the result of self-focus is an impetus to withdraw from further attempts. This has been demonstrated, for example, among subjects who expressed a moderate fear of snakes. If a mirror were placed behind a snake pit those who felt they could successfully pick up a snake came significantly closer to the snakes than those who thought they could not (Carver, Blaney and Scheier, 1979a). Similarly, subjects who expected to fail or succeed were significantly affected by the presence of a mirror (Carver, Blaney and Scheier, 1979b), whereas no-mirror subjects' attempts did not differ with respect to their expectancies. This approach-withdrawal aspect of the Carver and Scheier theory has implications for self-esteem (Brockner, 1979a) and social facilitation (Slapion and Carver, 1981),as will be shown presently.

Along with those technical differences between the theories, the other important areas of divergence concern the questions on which

they focus. Three areas of interest can be identified. Wicklund's (1982) approach stresses questions such as 'How are the partner, the small group, and the broader society benefited by the self-aware condition of any particular member?' (p. 209). That is, he is preoccupied by the social functions and nature of self-awareness. The Buss (1980) and Scheier (Scheier and Carver, 1981) approach is to take a 'view of the self as a multi-faceted entity' (Carver and Scheier, 1981a, p. 309) ... 'a particularly useful distinction being that between the private and the public aspects ... whether by disposition or situation, however, when an aspect of self has been rendered salient, it presumably will be that aspect of self that is accessed when attention is self-directed ... and will subsequently influence behaviour' (p. 310). In short, that approach is concerned with distinguishing between private and public self-attention, both by means of dispositional measures and by situational manipulations. The orientation becomes increasingly cognitive as Carver's (1979) control theory approach is introduced where the 'consequences of attentional focus are [considered to be] best conceptualised in terms of information processing' (Carver and Scheier, 1981, p. 4). Some of the key differences between the approaches lie not so much in their basic assumptions as in their foci of interest. Consequently, the rest of this chapter deals with research on the effects of self-attention in relation to different types of situation and types of behaviour rather than with a comparison between the social, personality and cognitive emphases of the theorists. In general, the same body of evidence has been used to inform all three approaches. The following section will therefore commence with an assessment of the methodology employed by self-awareness researchers.

METHODOLOGICAL ISSUES

There seem to be two main methodological questions. Do manipulations of self-focus actually induce self-focus? Do different manipulations of self-focus lead to different aspects of self becoming the object of attention? The tentative answer to both is yes. There are, however, problems with the evidence and reasoning provided to date.

The purpose of self-attention manipulations is to increase the proportion of time that attention is self- rather than environment-directed (Carver and Scheier, 1981a; Wicklund, 1975). One effect of self-directed attention should be that self-schema are accessed more readily relative to other types (Hull and Levy, 1979; Markus, 1977). Davis and Brock (1975) had subjects guess what English personal pronouns should be put in some German prose in which the personal pronouns were underlined. Concordant with its presumed self-focussing effect the presence of a television camera led subjects to use more first person pronouns than when the camera was absent. Geller and Shaver (1976) found that subjects in a mirror and camera condition took longer to name the colours of self-relevant words (based on the Stroop [1938] colour word test) than did control condition subjects. It was argued that the manipulation caused increased accessing of the self-structure,and hence interfered with the task performance. For words which were not self-related no interference in colour naming performance occurred.

In order to assess the distinct effect of a mirror Carver and Scheier (1978) had subjects fill in Exner's (1973) self-focus completion blank (a measure of egocentricity). When completing sentence stems subjects in the mirror condition filled in more self-related words than did no-mirror subjects. Furthermore, this finding was replicated

when an audience was used to induce self-focus instead of a mirror (Carver and Scheier, 1978, Experiment 2). Taken together, these studies do imply that mirrors, audiences and video cameras are all potential inducers of self-focussed attention. Other reflective stimuli may have similar effects. For example, receiving heart beat feedback led subjects in an experiment by Fenigstein and Carver (1978) to take longer to name colours of self-relevant words in the Geller and Shaver (1976) task than did subjects who regarded the feedback merely as 'noise'. Arousal might also increase the perceptual salience of the self (Wegner and Giuliano, 1980). Subjects who ran on the spot for 2 minutes prior to filling in the Exner SFC blank made more self-relevant completions than did those who had not taken any exercise.

There appears to be little doubt that such manipulations do increase the influences of self on information processing. What is still questionable is the extent to which this is due to an altered orientation to the information or to the awareness of discrepancies. For example, Hull and Levy (1979) adopt the view that the validation studies reported above reflect increased encoding in terms of self-relevance rather than attentional focus on the self. They argue that attentional shifts to self (e.g. in Geller and Shaver's study) should detract from task performance <u>in general</u> rather than being restricted to self-relevant words. On the other hand, if the manipulation specifically affects encoding of information by using self-schemata rather than (for example) colour schema then it will only be self-relevant items which are affected. Hull and Levy's position, then, regards the motivational issues as less germane than do other theorists'. Carver and Scheier (1981) also argue that self-focus manipulations serve to heighten the salience of self-schema, but add that such schema

often incorporate behavioural standards and may serve in relation to higher order goals. Wicklund and Hormuth (1981) take issue with Hull and Levy more directly, arguing that awareness of 'endpoints' and the need to reduce discrepancies are both characteristic consequences of being in the presence of self-focus manipulations.

If one is prepared to accept that (at the very least) such manipulations do lead to a greater involvement of the self in behaviour the next question concerns the extent to which different manipulations involve different aspects of self. The strongest advocates of the argument that video/audience and mirror manipulations differ in that respect are Carver and Scheier (Scheier, 1980; Scheier and Carver, 1980, 1981). They claim that mirrors and private self-consciousness have analogous effects (see also Buss, 1980). These include the clarification and intensification of internal states, greater reference to personally held values and moral positions, greater self-consistency and increased self-attribution. In contrast, video feedback, audiences and public self-consciousness have different effects. They lead to increased conformity, a variety of self-presentational strategies, greater reference to one's behaviour (rather than personal standards) and more reliance on social norms. However,both private and public self-attention can have similar effects - if, for example, private standards and social norms are in concord.

THE EFFECTS OF SELF-ATTENTION

Focus of attention and task performance

One of the first launching pads for self-awareness research was the reanalysis of social facilitation effects. It was argued (Wicklund and Duval, 1971) that audience presence led to improved performance because the self-awareness (as opposed to drive or evaluation apprehension)

made subjects more responsive to the discrepancy between their actual performance and that desired. That Wicklund and Duval were able to obtain performance facilitation using a mirror instead of an audience seemed to support this reasoning. A debate ensued (Hormuth, 1982; Innes and Young, 1975; Liebling and Shaver, 1973; Liebling, Seiler and Shaver, 1974; Paulus,Annis and Risner, 1979) about the role of drive in self-awareness inducing conditions (see also Liebling, Seiler and Shaver, 1975; Wicklund, 1975b). It is currently accepted that mirrors and audiences do induce different levels (Paulus et al., 1978) and possibly different types (Carver and Scheier, 1981c) of arousal. One clear reason is that audiences are implicitly evaluative (Cohen and Davis, 1973) and may produce evaluation apprehension (Cottrell, 1972). This means that the performer is uncertain of the positivity of the evaluation to which he/she is subjected.

In contrast, a self-evaluative mirror condition involves relatively unambiguous standards - those set by the performer (cf. Abrams and Manstead, 1981). Studies on the facilitation and inhibition of aggression showed first that mirrors could make behaviour tend more in either direction (Carver, 1974, 1975) depending on the standard of correctness and, second, that eye contact with an audience was necessary - as opposed to mere presence - before a similar effect could be reproduced (Scheier, Fenigstein and Buss, 1974). Explanations for these effects in terms of drive enhancement of dominant responses were thus cast aside. However, it must be noted that delivering punishment on an electric shock machine is quite different from the kinds of motor skills and non-social tasks to which social facilitation theory applied itself. Even so, if a dominant response is construed as the behavioural component of a schema then the drive/self-attention explanations may still be compatible.

Wicklund (1982; Wicklund and Frey, 1979) points out that, irrespective of the drive or motivational properties of self-awareness, there is inevitably a balance between task complexity, self-attention and task performance. Essentially, it is argued that 'the more complex the task, the less self-awareness one can introduce without danger of disrupting performance' (Wicklund, 1982, p. 221). On a simple task such as copying prose, a moderate amount of self-attention reminds subjects of the standards but does not hinder performance (Wicklund and Duval, 1971), but if either the self-attention (e.g. Liebling and Shaver, 1973) or the task complexity (Brockner, 1979a) increases there is insufficient attentional capacity available to perform well. It might well be, therefore, that the impact of self-focus will be greater in simple decision making than in continuous performance situations. On the other hand, attending to highly automated acts may also be disruptive (Kimble and Perlmuter, 1970; Wicklund, 1975). But, as mentioned earlier, it may be that evaluation apprehension and test anxiety (Wine, 1971) also affect performance by their effects on self-attention. If affective states tend to demand attention they may interact with positive or negative performance expectancies and increase the reassertion / giving up tendencies outlined in Carver and Scheier's (1981a, 1981c) control theory model. There is some evidence which suggests that affect is readily accessible via self-attention.

Attention to affect

An important development in self-awareness theory was an experiment by Scheier (1976). Using the Buss aggression (teaching) paradigm Scheier had the learner interact in one of two styles with the teacher prior to the teaching session. In one condition the learner insulted

and abused the teacher, while he was attempting the 'Tower of Hanoi' puzzle; in the other the learner remained neutral. Subjects had all been pretested on their attitudes towards reactions to feeling angry and did not differ in this respect. Subjects were divided into high and low private self-conscious and were either in a mirror or a control (no mirror) condition. Scheier suggested 'when angry, a self-aware person can either attend to his personal standards or to his angry affect. When affect is strong it is reasonable to assume that attention will be directed towards the affect rather than standards. Such heightened attention to one's own anger should lead to greater aggression' (p. 628). This was confirmed in so far as only within the mirror condition or within highly private self-conscious subjects were angered teachers more punitive than non-angered teachers. (It is surprising, however, that attitudes to punishment - personal standards - did not predict aggression levels in the mirror/non-angry condition.) It was concluded that 'increased awareness of one's affective state enhances the tendency to respond to that state' (p. 643).

In a series of experiments Scheier and Carver (1977) demonstrated that subjects who were either made self-aware by a reflective surface appearing between slides or who were highly private self-conscious showed heightened responsiveness to the content of those slides. Specifically, slides of nude women were rated as more attractive and slides of atrocities of war as more repulsive by these subjects than by control or low private self-conscious subjects. Similarly, elatory or depressing statements led to more extreme experience of elation or depression among mirror/high private self-conscious than among control/low private self-conscious subjects. Throughout these studies there were no effects of public self-consciousness. Further evidence of heightened awareness of affect due to self-attention was provided

by a series of studies on suggestibility. Subjects who were led to expect symptoms from a (placebo) drug resisted the suggestion that they should feel aroused more in a mirror than in a no-mirror condition, although the mirror did not eradicate the suggestibility effect (Gibbons, Carver, Scheier and Hormuth, 1979). A conceptual replication (Scheier, Carver and Gibbons, 1979) of this was conducted using supposedly attractive or unattractive slides of (pre-rated equally attractive) female nudes. In a second experiment, it was found that judgements of the relative strengths of the taste of two solutions were more accurate and more resistant to counter-suggestion among high than among low private self-conscious subjects. Consistent with this, Scheier, Carver and Gibbons (1981) found that high private self-conscious subjects either approached or did not approach a snake pit and either did or did not volunteer to undergo a series of electric shocks more on the basis of their fear of such situations than did lows. They concluded that 'whether the self-focussed attention was manipulated or assessed as an individual difference ... presence of an affect overode the tendency of self-focussed attention to increase behavioural conformity to an experimentally established standard ... when affect is strong it is the affect to which attention gravitates ... and determines behaviour ... self-awareness should also increase the tendency for a person's standards to be supplanted by a hedonistic orientation' (p. 14). Wicklund (1982) concurs with this view. Further corroboration comes from the finding that private self-consciousness correlates positively with the intensity of general depression (Smith and Greenberg, 1981). One question which arises from all of these studies is how far 'affect' and 'standards' are distinguishable, an issue which will be discussed later. An obvious link between the two, however, is the role of morality in determining behaviour.

Self-attention and the adoption of moral standards

A small, but important, section of self-awareness research has dwelt on the effects of self-focus on adherence to moral standards. There is a clear link between this and other research which has attempted to associate self-awareness and deindividuation. Following from the basic finding that self-attention increased adherence to personal standards, it was found (Duval, Duval and Neely, 1979) that those subjects who were exposed to their own image *via* video feedback *immediately* prior to, and following, a film about victims of a V.D. epidemic, assumed greater responsibility for their lack of concern and were more willing to offer help than were those who were given delayed feedback. In short, it was argued that greater self-focus led to a greater sense of moral responsibility. This assumption is shared by Wegner and Schaefer (1978), who suggest that helping behaviour is mediated by self-awareness. In a different vein, voice feedback and mirror was found to prevent cheating (1 out of 14 subjects cheated) relative to other voice/no-mirror conditions (10/14 cheated) (Diener amd Wallbom, 1976), although there is evidence that this effect is dependent on subjects being unconcerned with the presentation of their own level of skill (Vallacher and Solodky, 1979).

Other research (Gibbons, 1978) has indicated that a person's reaction to pornography is more reliably predicted by his/her pre-measured sex-guilt under mirror conditions ($r = .6$) than under control conditions ($r = .1$). This finding held both for males viewing pornographic slides and for females reading erotic literature. A study by Beaman *et al.* (1979) demonstrated that trick or treating children transgressed against a 'take one sweet only' instruction less when a mirror was behind the sweet bowl than when the mirror was absent.

One problem with these studies is whether the moral standard

involved is a social norm or a personal value. Buss (1980) points out that transgression against the former should lead to shame and against the latter to guilt. An important implication of this is that shame is supposedly a function of the public self, whereas guilt is a function of the private self. Unfortunately, none of the studies reported above adopted Buss's distinction and several other studies (Gibbons and Wicklund, 1982; Karylowski, 1979) have found that neither mirror,nor voice feedback,induced self-focus promoted altruism or even equity. The latter study found that only if subjects' self concern were low, and the salience of helping high, did mirror presence increase helping behaviour (Experiment 3). In sum, it is debateable whether or not self-focus increases adherence to moral standards because (a) focus may be on a non-relevant aspect of self and (b) little research has yet been conducted to identify a moral standard that defies a societal norm. A part of this vagueness may be due to the rather general (or systems concept) level of moral standards. Research on adherence to attitudinal standards tells a less ambiguous story.

Self-attention and self-consistency

One major problem for social psychology is that there is rarely a close correspondence between people's attitudes and their behaviour (Wicker, 1969). This absence of valid self-report was of considerable interest to self-awareness theorists. Since a major tenet of self-awareness theory is that attending to self leads to a reduction in discrepancies the same principle should apply to self-reports and behaviour. It was indeed found that behavioural sociability corresponded with self-reports taken a few days earlier more ($r = .65$) if the self-report occurred in a mirror condition than a control ($r = .16$) condition

(Pryor et al., 1977). Two further experiments by Pryor et al. (1977) indicated that self-focus motivated subjects to reconcile their self-reports with prior behaviours, and increased the predictive validity of their self-reports.

Subjects who had reported their tendency to be aggressive were later used as subjects in the Buss teaching paradigm (Scheier, Buss and Buss, 1978). Among highly private self-conscious subjects, self-reported aggressiveness correlated highly ($r = .66$), whereas there was virtually no association among lows ($r = .09$). Levels of public self-consciousness did not predict self-report validity. Similar findings are reported by R.G. Turner (1978b), by Scheier (1980), and in a study of self-reports of creativity (Hormuth, 1979). Such findings are consistent with those of Carver (1975) in that self-focus appeared to close the gap between self-reported standards and behaviour. That situational inducement of private self-attention and private self-consciousness are similar in this respect is encouraging. Another approach to self-consistency can be found in studies which address behavioural conformity to social norms or values.

Self-attention and reactions to pressures of social influence

In adopting the distinction between public and private self-focus Scheier has also introduced a possible tension between views of 'human behaviour as guided by and motivated by personal concerns and private needs or as motivated by the desire to manage successfully the external and public display of self' (Scheier and Carver, 1981, p. 191). He argues that either self-completion or self-presentation may influence behaviour. The private or public aspects of self will:

> 'influence the person's behaviour only if that self-aspect is taken, at least temporarily, as the object of the person's own attention' (p. 192).

> [In order to examine these effects] 'situations must be created in which one aspect of self would be expected to have an impact on behaviour but the other aspect of self would not. In such a case, heightened attention to the relevant aspect should influence behaviour, but attention to the irrelevant aspect should have no effect ... both internal, private motivations and self-presentational concerns are operative in many behavioural contexts ... each of these sets of motivational concerns has a greater impact on behaviour when attention is directed to the aspect of self which is relevant to it' (p. 197).

The data in support of these claims come from two types of studies: those which seek to show that psychological reactance and resistance to conformity is increased by private self-focus (Carver, 1977; Carver and Scheier, 1981c; McCormick, 1979); and those which have shown that public self-focus increases the adoption of social norms for behaviour (Carver and Humphries, 1981; Diener and Srull, 1979; Froming and Carver, 1981; Wicklund and Duval, 1971). Indeed, it is this branch of the research which has been marshalled in support of the view that self-awareness can vary in the degree to which it is a social phenomenon.

Manipulated public self-focus (via video feedback) increased subjects' reliance on the norms of judgements made by 1,000 other (bogus) students on a visual perception task (Duval, 1976). In a repeated measure (self-aware/non self-aware design) it was found that subjects who thought they had surpassed social standards on a visual task rewarded themselves more when self-aware than when non self-aware. In contrast, when surpassing only personal standards the self-aware subjects rewarded themselves less than when non self-aware. It was concluded that the video and own voice feedback 'shifted the weight given the two types of standards' (Diener and Srull, 1979, p. 420).

Later research incorporated manipulations of private self-focus in order to demonstrate the potential for public and private

self-attention to have divergent influences on behaviour. For example, Froming, Walker and Lopyan (1982) recruited subjects who believed that most people's attitude towards the use of punishment in teaching was opposed to their own view. Two experiments were conducted, one using pro-punishment subjects and another using anti-punishment subjects. In both it was found that an evaluative audience increased adherence to perceptions of the social norm, while a mirror increased adherence to personal norms when subjects later administered electric shocks to a confederate learner. Other research (Scheier and Carver, 1980) demonstrated that the 'socialness' of the standards used by publicly self-aware people need only refer to their own overt behaviour. They found that, whereas mirror subjects seemed to shift their attitude less in the direction of a counter-attitudinal essay which they had written, video subjects shifted more in the counter-attitude direction relative to controls. Similar results were found among high private and high public self-conscious subjects respectively. All this was said to provide 'compelling evidence that cameras and mirrors make persons aware of very different aspects of themselves ... it may require very little change in the situation for a rather dramatic shift to occur in which self-aspect is actually salient' (Scheier and Carver, 1980, p. 404).

Further evidence in relation to compliance phenomena suggests that public self-focus involves awareness of being socially deviant (Froming and Carver, 1981). Subjects were estimating the number of clicks along with 3 co-subjects. On certain trials the co-subjects unanimously agreed on a number,which was in fact either one or two clicks in error. It was found that private self-consciousness correlated negatively ($r = -.43$) with compliance, whereas public self-consciousness was positively correlated with it, but only after

private self-consciousness had been partialled out (r = .3), and only on trials in which the error was 2 clicks.

In the investigation of the role of private self-focus it was found that mirror induced self-focus increases reactance against threatening communication (Carver, 1977), an effect replicated using high versus low private self-conscious subjects (Carver and Scheier, 1980). Similarly, McCormick (1979) found that mirror induced self-focus inhibited conformity under group pressure and that self-consistency was maximised under such conditions. The basic conclusion from this research is that, while private self-focus increases adherence to private standards, public self-focus increases adherence to public ones. Obvious problems with this argument include the question of how a person who is high in dispositional self-focus of both types might respond in situations when private and public expectations conflict. Also of interest is the role of the group in creating or preventing self-focus in its members. This is an important issue since it appears from the preceding sections that self-awareness is the mechanism by which our behaviour is regulated.

Deindividuation, group membership and self-attention

Several attempts have been made to delineate the relationship between self-awareness and deindividuation (Carver and Scheier, 1981a, 1981b; Diener, 1979, 1980; Diener, Lusk, DeFour and Flax, 1980; Ickes, Layden and Barnes, 1978; Nadler, Goldberg and Jaffe, 1982; Prentice-Dunn and Rogers, 1982; Scheier and Carver, 1981; Wicklund, 1982; Zimbardo, 1970). Diener's research has found that, when they are engaging in embarrassing tasks, subjects who are highly observable or in smaller groups feel more self-conscious than do those in larger groups or with fewer observers. The anti-normative behaviours of

deindividuated subjects occur because the person ceases to self-regulate. In Carver and Scheier's (1981b) terms: 'The comparator of the Program or Principle level has ceased to compare perceptual input with the standard that is available to it' (p. 126). However, Carver and Scheier (1981a; Scheier and Carver, 1981) propose that, while anonymity might reduce attention to the public self, immersion in group experiences only reduces attention to the private self.

This position receives support from a study by Prentice-Dunn and Rogers (1982). They argue that lowered public self-focus is in some sense analogous to greater anonymity and a lowered feeling of accountability. It is this lowered accountability which may release 'anti-normative' behaviours (where this refers to general social norms, not specific group norms). Private self-focus has its effects <u>via</u> attentional and perceptual processes. Specifically, 'the antecedent situation is manipulated to direct attention away from oneself, private self-focus is reduced ... the person cannot retrieve standards with which to compare and adjust his or her behaviour' (p. 505). They asked subjects either to attend to themselves or to focus outward, and reinforced these directions of attention by having subjects in a quiet brightly lit room or in a noisy colourful room. Accountability was varied by high or low anticipated contact with a 'learner',to whom subjects were asked to administer electric shocks, in the Buss teaching paradigm. As predicted, either low self-attention <u>or</u> low accountability produced greater aggression. Furthermore, self-reports of public self-awareness were affected by the accountability conditions and of private self-awareness only by the attention manipulations.

While that study did serve to distinguish between the roles of the two aspects of self in deindividuated conditions, it still led to the conclusion that reductions in any self-focus are in some sense a

'bad thing'. Such a view is not confirmed by Wicklund (1982), however, who notes that 'deindividuation may well be an index of a secure society or group, with no concerns about individual members' obedience and allegiance, that can afford the happy escape from self-awareness' (p. 226).

One assumption of these approaches is that there is an emphasis on the absence of self-regulation by group members. There is, however, evidence that people may regulate their behaviour more by group standards when they are self-aware. Recall that Wicklund and Duval (1971) were able to induce shifts towards the attitudinal position of a positive reference group using a camera manipulation of self-awareness. More recently this finding has been replicated using dispositional public self-consciousness (Carver and Humphries, 1981). It was found that the tendency to renounce the opinions of a negative reference group (the Castro government in Cuba) was greater among high public self-conscious Cuban Americans than among lows. When the opinions were unattributed, highs and lows did not differ in their endorsements. Private self-consciousness was unrelated to the effect. This evidence led Scheier and Carver (1981a) to the conclusion that 'the phenomenon was one of self-portrayal' (p. 210). The present position on groups, then, is that immersion in a group involves a loss of private self-attention and that the use of reference groups is merely a pragmatic self-presentational tactic. This thesis challenges those assumptions, as will be seen in the next chapter.

ASSESSMENT AND CRITIQUE

The preceding sections aimed to present self-awareness research as a fairly coherent body of empirical findings. In fact, there are a number of ambiguities concerning: (a) the generality of the findings;

and (b) the adequacy of the theory. This section will examine these issues, although the analysis of the self-consciousness scale as a psychometric instrument is dealt with separately, in Chapter 4.

Assumptions of the theory

The first question is whether or not the bi-directionality of attention (self-directed or environment directed) which is assumed to occur (Carver and Scheier, 1981a; Wicklund, 1975, 1980) actually does. The important issue is not whether attention can be directed in these ways but whether attending to one object necessarily precludes attending to another. The theory states that attention may oscillate rapidly between foci, but it should be noted that information processing theorists do not rule out the possibility that at least two different sources of information can be attended to, especially if they occur in different sensory modalities (cf. Kahneman, 1973). For example, a musician can monitor the notes being played, their volume, and how cold his or her hands are. However, it is probably a reasonable assumption that one or other theme takes precedence at any given time.

There is, in fact, some evidence (Vallacher, 1978) that self-attention does have deleterious effects on the processing of information about other people. Even so, it may still be of use to allow that attention can be simultaneously directed towards different objects since this would enable (for example) a person to be assessing his or her actions in relation to both private and public aspects of self simultaneously. To return to the performing musician, he or she may be simultaneously aware of the act for the audience and feelings of nervousness or excitement. Indeed, it may only be the perception of both sources of information that gives meaning to the performer's actions.

A second question is how standards of correctness (Wicklund's 'endpoints') actually operate. It has been agreed that self-attention will lead either to the perception of a within-self discrepancy or to a general clarification of one's affective state. Indeed, if the affect is strong it will be the affect, in preference to a standard, to which attention is directed. It is even possible that arousal (Wegner and Giuliano, 1980) or the perception of arousal (Fenigstein and Carver, 1978) can induce self-focus. In fact, the evidence is equivocal.

Scheier's (1976) angry aggression study demonstrates the problem. It was found that angered subjects aggressed more in a mirror condition that did non-angered subjects and that their attitudes to angry aggression did not affect this result. It was argued that the mirror produced 'heightened responsivity to the affect' (Carver, 1979, p. 1260). There are, however, two alternative explanations. First, it could be that mirror subjects were more aware of the social standard of retaliating when taunted. Second, it could be that, while all subjects were equally angry in the anger condition, the availability to mirror subjects of visual feedback (of their facial expression) provided a standard for aggressive behaviour - 'I look cross so I'd better behave cross' (cf. Bem, 1967). Similarly, in the Scheier and Carver (1977) study, mirror presence may have made subjects more aware of their responses to disgusting, erotic, depressing or elatory stimuli and thence led to more extreme reports of such states. Alternatively, subjects may have been more aware of the socially appropriate responses to such stimuli, and responded more in accordance with these standards.

The problem seems to be a function of trying to separate internal states or views from standards for behaviour. In most cases these

should be congruent. For example, the more accurate self-reports of private self-conscious subjects (Gibbons et al., 1979; Pryor et al., 1977; Scheier and Carver, 1979) may not be a function of clarification of internal states but of the heightened salience of a standard to report honestly (cf. Diener and Srull, 1979). In any case, it is unclear whether private self-focus increases awareness of internal states per se or of reactions to those states (e.g. facial expression). These explanations are made plausible by replications of the Scheier and Carver (1977) study by Lanzetta, Biernat and Kleck (1980) and Kleck et al. (1976), both of which found that mirrors or audiences did influence facial reactions to affect-inducing stimuli and that these facial cues influenced their self-reports of affect too (cf. Kraut, 1982).

The basic point is that affect/internal states and standards are not usually separable entities. An affective response is likely to be based on the categorisation of a stimulus. The schema evoked may well incorporate behavioural standards too. As Carver, Blaney and Scheier's (1979a) work demonstrated, the same fearful affect can lead to different behaviours under self-focussing conditions, depending on the standards (expectations) associated with it.

A third question is where the standards come from. Scheier (1980) makes great play out of separating societal/public standards from personal ones. However, it can be argued that all standards are socially derived (e.g. Festinger, 1954; Mead, 1934). The factor being manipulated when we talk about public or private self-attention may be the accessing of standards derived from an assessment of the immediate situation as opposed to standards based on past encounters with such situations. If this is the case, it represents a challenge to the public/private distinction. If, for a moment, we ask why a

person focuses on his/her public self the answer must be 'because he/she privately cares about it'. Hence the behavioural component may be public but the motivational component is necessarily private. Indeed, it is likely that we use others' reactions to our overt behaviour as information to assess our own emotions (Baumeister and Cooper, 1981; Ellis and Holmes, 1982). It certainly seems probable that presentation of self serves both audience-pleasing and self-constructive purposes (Baumeister, 1982a, 1982b). As the following evidence suggests, public and private selves are not always separable entities. More importantly, manipulations which should induce differential focus on the two self-aspects do not always have the predicted effects.

Conceptual distinction between public and private

It may be useful to ask why this distinction has been drawn. One reason might be that the social and the cognitive elements of the theories are not well integrated. If one just considers private self-attention it is a cognitive process which need not involve anyone but the individual concerned. It is manifestly asocial. Hence, it is private self-focus which the cognitive theorists have examined most concertedly. Public self-focus, on the other hand, is thought to be entirely social in its nature. The reaction to public self-attention is an increased orientation to a potential audience. Hence the more social theorists have emphasised the public aspects of self.

Wicklund (1982) points out that the important issues concern which 'endpoints' the self-aware person is using and why. It is as yet unclear whether the individual chooses to attend to specific aspects of self or whether there is some automatic process which is beyond conscious control. Some authors (e.g. Rothbaum, Weisz and Snyder, 1982) suggest that use of the private and public domains (in their

terms 'primary' and 'secondary' control) both represent efforts to gain control over behaviour. That is, we can either feel in control by acting on the environment or by bringing ourselves into line with environmental forces. As mentioned earlier, this may be thought of as adhering to a private standard to conform publicly.

Even within the self-awareness literature, there are examples which suggest an inseparability of the private and the public selves. Buss (1980) argues that shame is caused by the awareness of having publicly transgressed a social rule. It follows (but is not stated) that the experience of shame or embarrassment should be stronger under public than private conditions. However, this affective state is (theoretically) a part of the private domain and should therefore be less intense among publicly self-focussed individuals than among the privately self-focussed. (Presumably, then, neither form of self-focus, alone, would be sufficient to exacerbate shame, since it is the knowledge of public behaviour and its social consequences which causes and gives meaning to the private affective state.)

The reverse may also hold true. If a guest at a dinner party feels hungry after a first helping of the main course he or she may observe the behaviour of other guests before accepting a second helping. Such a situation calls for the individual to relate a private state to public behaviour. He or she is not either publicly or privately self-aware since each state on its own would lead to inappropriate behaviour. The conceptual distinction between these two self-aspects should therefore be viewed with caution. Either may be the object of attention, but it is uncertain whether the separation between the two is common in everyday life. This question will be dealt with more extensively in Chapter 4, with reference to individual differences in self-consciousness.

Empirical distinction between public and private self-attention

Carver (1979) notes that,if private and public standards were the same, self-awareness of any type would lead to the same reactions. For this reason Scheier, Fenigstein and Buss (1974) found that either a mirror or an audience with whom the subject engaged in eye-contact led to a reduction in the intensities of electric shocks being delivered to a learner. However, when the experimenter provided a public standard to deliver strong shocks (Carver, 1974) a mirror increased the intensities that were delivered; despite the later reasoning that mirrors/private self-focus make subjects more likely to react against threats to their freedom to choose for themselves (Carver, 1977). More problematic for differential self-awareness theory are the findings which directly oppose those which might be predicted.

The effects of low self-esteem on task performance are exaggerated among self-focussed subjects. However, Brockner (1979a, 1979b) found that this occurred when self-focus was induced by mirror plus audience plus video feedback manipulations. Other research has indicated that sensitivity to negative within-self discrepancies is increased by private self-focus via mirrors or private self-consciousness (Brockner and Wallnau, 1981; Greenberg and Musham, 1981; Scheier, Carver and Gibbons, 1981; Ickes, Wicklund and Ferris, 1973, Experiment 3) and own-voice-feedback (Ickes, Wicklund and Ferris, 1973, Experiments 1 and 2; Steenberger and Aderman, 1979). Since self-esteem is an internal state it seems difficult to explain why its role may be influenced by conditions which are supposed to induce public, as well as those which induce private, self-focus.

The ambiguity is demonstrated most clearly by one of the first studies involving public self-focus. It was found that highly public

self-conscious subjects reacted to being shunned (feelings of rejection, antipathy, etc.) by others more extremely than did lows. Private self-consciousness had no effect (Fenigstein, 1979). In a second experiment subjects were interviewed and were provided with either positive or negative feedback by the interviewer. Half of the subjects could see themselves in a mirror placed behind the interviewer. These mirror condition subjects reacted more strongly to negative feedback than did no-mirror control condition subjects. Although the results were explained in terms of focus on the public self, the mirror should have induced private self-focus (at the same time as the interviewer should have induced public self-focus). In fact, these two experiments suggest that private feelings and cognitions relating to feedback about public aspects of self may be intensified both by attending directly to those feelings and by attending to the nature of the social feedback more closely.

Self-directed attention seems to lead to more self-attribution, but this is the case whether a mirror (Duval and Wicklund, 1973, Experiment 2; Fenigstein, 1979) or video feedback (Duval, Duval and Neely, 1979) are used to induce self-focus. Taking responsibility for either positive or negative outcomes appears to be solely based on private self-consciousness (Buss and Scheier, 1976). This latter study found that both public self-consciousness and mirror presence had no impact on self-attributions. They concluded, however, that 'taking the perspective of others provides no basis for making self-attributions, and therefore public self-awareness should not be a determinant of such attributions' (p. 464).

Direct evidence to the contrary was provided by Hull and Levy (1979) in their reappraisal of self-awareness theory. They found that a mirror condition only increased self-attribution if subjects

were identifiable and anticipated discussing their answers later on. If these two factors were absent a mirror actually decreased self-attribution relative to a control condition. Thus it was increased publicity which led to an increase in self-attribution. In still another study (Fenigstein and Carver, 1978) heart beat feedback led to greater self-attribution than no feedback. At the very least, these experiments demonstrate that self-attention per se is sufficient to increase self-attribution, but it is unclear whether the self-aspect attended to is relevant.

An examination of studies which have attempted to demonstrate the validity of various self-focussing stimuli cast further doubt on the public/private distinction. Either a mirror or a camera led to an increase in the number of self-referent statements (Davis and Brock, 1975), and either a mirror, an audience or high private self-consciousness increased the number of egocentric responses (Carver and Scheier, 1978), although high public self-consciousness did not. Geller and Shaver's (1976) experiment used both camera and mirror, while Fenigstein and Carver's (1978) used perceptual feedback and Wegner and Giuliano's (1980) used actual arousal to increase self-focussed attention. In none of these was the public/private distinction adopted. In fact, it seems to be public self-attention which is the unstable element.

Descriptions of public self-awareness have changed over a period of years. At one time it was suggested that 'persons high in public self-consciousness may be aware of the kind of impression they are making, but do little to use this knowledge either to gain approval of others or to guide their self-presentation' (Scheier and Carver, 1979, p. 249).

This position was then modified so that public self-awareness was said to make a person 'intensely aware of the kind of impression he or

she makes on others ... [and] ... try harder to create a favourable public image ... modulate their own beliefs to make them more consistent with the beliefs of those around them' (Scheier, 1980, p. 515). Finally (Carver and Humphries, 1981), it is indeed thought to be 'a self-presentational phenomenon' (p. 547).

If video manipulations increase public self-awareness they should also increase responsivity to others' behaviour (cf. Fenigstein, 1979). Contrary to that hypothesis, video feedback reduced subjects' capacity to make reliable judgements about others (Vallacher, 1978). It is strange that the data on which self-presentation is based (others' behaviour) received less, rather than more, attention. Two other studies suggest that video manipulations may not restrict attention to the public self. Ickes, Layden and Barnes (1978) argued that increasing self-awareness would 'lead to increased individuation as evidenced by analysis of "Who am I?" responses' (based on Kuhn and McPartland's, 1954, Twenty Statements Test). The presence of a television camera led to the use of more unique attributes, activities and interests but fewer categorical self-descriptions, abstract identifications or sense of 'unity' relative to control conditions. Surely, if the public self had been the object of attention, public aspects such as group membership and role identities should have been cited more, not less, often. The evidence suggests that, in fact, the private self was receiving attention. A similar study but using repeated measures (Jonassen, 1979) found that subjects who completed the TST in a video feedback condition showed a general reduction in the number of categorical descriptions and an increase in attributive responses. It was suggested that 'inducing this state ... reduces the need for social anchorage ... subjects tended to relate self less to social comparisons, engaging more in self-evaluation' (p. 263). Taken

together, the Ickes, Layden and Barnes (1978) and Jonassen (1979) studies suggest that the effects of video feedback may be precisely the reverse of those anticipated by self-awareness theorists (cf. Scheier and Carver, 1980). In addition it has been found, on at least one occasion (Carver and Humphries, 1981), that video manipulations failed to replicate the effects of high public self-consciousness. In that study of reference group behaviour private self-consciousness had no effect either. It may therefore be more parsimonious to argue that the video manipulation induced irrelevant private self-focus in that experiment than to suggest that it did not 'work'.

It is possible to adopt a more open position when approaching the issue of public and private self-attention. The problem might be stated as a question: 'What makes an aspect of self salient?'. By arguing that video and mirror manipulations have quite different effects in the same situation (and likewise for dispositional public and private self-consciousness) Scheier and Carver (1980) are really saying that those attentional variations are inherently increasing the salience of particular aspects of self. There is, however, no reason to suppose that other factors may not render a given aspect of self salient and that any form of self-attention inducement will enhance awareness of that aspect. Indeed, this position is quite close to that of Carver (1979): 'If the prototypes to which the environmental inputs correspond have cue implications for some specific self-information, the self-information is probably accessed (in a preliminary, preattentive fashion) by the very process of classifying the environmental input. The aspect of self that is represented by that self-information presumably will be more salient than other self-aspects when attention is subsequently directed inward' (p. 1260). What is important here is that the components of salience and attention are separated. Carver's

position implies that the salient self-aspect becomes the object of attention,whereas Scheier's (Scheier and Carver, 1981) implies that the direction of attention creates the salience (e.g. Froming, Walker and Lopyan's [1982] comment that 'mirrors heighten the salience of covert or private aspects of self', p. 477). Wicklund's (1980) position is that 'self-focussed attention gravitates to whatever part of self is most salient at the time ... no matter what circumstances cause the onset of self-awareness' (p. 190). In turn, the salience of different endpoints or goals is determined by their 'centrality' in James' (1910) terms. Hence, emotional or affective states will seize attention before volitional decisions,which themselves will precede social norms. Essentially the more dynamic and the more unique aspects of self will take precedence over the static and shared (e.g. reference group or attitudinal) aspects of self when the individual is self-aware.

The more general position, while having its attractions, does create problems for the researcher. Specifically, if self-awareness produces an effect which is different from those found previously (cf. Rule, Nesdale and Dyck, 1975; Scheier, 1976), is it reasonable to infer that different aspects of self had been rendered salient in the two situations? This produces a danger that,whatever the outcome, self-awareness theory cannot be refuted. In the case where self-focus inducing manipulations produce no discernible effects there are a number of plausible explanations: the manipulation may have failed; the focus may have dwelt on an irrelevant (in terms of measurement) aspect of self; decremental effects due to lack of task attention may have balanced incremental effects of self-attention; the self-aspect concerned may have already been so salient that self-attention could not increase its effects.

In an earlier assessment of this problem Abrams[6] argued that three crucial variables should be manipulated in the following order of priority: salience of a given self-aspect should be maximised.- at the very least this would allow one to say which aspects of self are influencing behaviour; following this, any standards of behaviour which the experimenter wishes to impose (e.g. moral versus performance aspects in the Vallacher and Solodky, 1979, experiment); and finally the type of inducer of self-attention, which should encourage attending to those aspects which are appropriate to the salience and standards manipulations (i.e. a mirror if the salient self-aspect is deemed to be essentially private and an audience if it is in a more public domain). The view that it is the manipulation of self-focus that determines which self-aspect is salient (and implies standards) is probably an erroneous extrapolation based on the predictions which may indeed be made on the basis of dispositional self-consciousness. Types of self-consciousness probably do represent the tendency for particular self-aspects to become salient and are a part of the individual - rather different from situational manipulations of attention. The distinction between salience and attention will be examined more closely in a later chapter of this thesis, as will two other issues - how self-awareness theory deals with group behaviour and developmental factors in self-awareness. For the time being it will suffice to say that the important limitation of the theory with respect to groups is that it has only sought to examine reference group behaviour (Carver and Humphries, 1981; Froming and Carver, 1981; McCormick, 1979; Wicklund and Duval, 1971), and individuation (Diener, 1980), but has never examined the role of self-awareness in membership groups. The possibility of achieving an integration between self-awareness theory and the theory of social identification (Tajfel and Turner, 1979)

will be discussed at length in Chapter 3.

SUMMARY

Self-awareness theory has attempted to explain how individuals regulate and direct their behaviour, both in terms of their privately evolved standards or feelings and in terms of social influences. It has been argued that people hold standards or endpoints which they are motivated to reach, and that the motivation is increased when they are attentive to those standards. It appears that evaluative and self-reflective stimuli as well as dispositions can be used to generate high levels of self-attention, although it is debateable how separable various aspects of self are. A distinction has been made between the private content and the public content of self. Attending to the former exaggerates affective experience and clarifies internal states and attitudes. Attending to the latter promotes conformity to pressure from other individuals and a pragmatic orientation to self-presentation. Attending to neither is equivalent to the state of deindividuation and may lead to unregulated behaviour.

Self-awareness theory is unsound in so far as the public/private distinction may be invalid on the conceptual and empirical levels. Also, the theory has constantly divided 'self' into sub-components such as affect, attitudes, morals, and overt behaviour. It is unlikely that individuals' self-concepts are so discrete. While a more general conceptualisation of self-awareness may provide a more parsimonious account of research to date it leads to ambiguities when predicting the effects of self-attention on behaviour. In particular, it is necessary to articulate the roles of salience of and attention to aspects of self in combination with the behavioural standards associated with these factors.

CHAPTER 2

SOCIAL IDENTITY AND INTERGROUP BEHAVIOUR

The aim of the present chapter is to provide an account of the social identification approach to intergroup relations. This account will be based on several reviews and statements made by the theory's principal exponents (Brown and Turner, 1981; Tajfel, 1978; Tajfel and Turner, 1979; Turner, 1981, 1982). There have been two themes in these statements. The first was to present the social identification model of intergroup behaviour. The second was to argue for the conceptual and empirical superiority of that approach in comparison with the so-called 'individualistic' theories of intergroup behaviour preferred by North American theorists. Indeed, it could be suggested that social identity theorists best exemplify their own theory in seeking to make it positively distinctive from others' (see Turner and Giles, 1981, introduction). Their first task seems to have been the critical dismissal of many individualistic approaches (Brown and Turner, 1981; Caddick, 1981; Tajfel, 1978; Tajfel and Turner, 1979; Turner, 1981, 1982) before introducing the social identity approach as the panacea. This chapter will reverse the procedure. It will first describe social identity theory and then briefly address some alternatives before identifying particular areas of interest or uncertainty.

THE DEVELOPMENT OF SOCIAL IDENTITY THEORY

Social identity theory emerged from two interests of Henri Tajfel. First he was interested in the process by which people categorise and perceive their environment (e.g. Tajfel, 1959) and, secondly, in the psychological processes underlying social stereotyping and discriminatory

intergroup behaviour (e.g. Tajfel, 1978b). In fact, Tajfel was very much rooted in the Piagetian and Brunerian tradition of conceiving of the cognitive world in terms of accommodation, assimilation, over-inclusion and over-exclusion of objects into categories and the idea of perception as an essentially cognitive process.

An important contribution which pointed to the development of social identity theory was a paper by Tajfel and Wilkes (1963) which reported that when a series of 8 lines of increasing length was divided into 2 categories, 'A' (shorter) and 'B' (longer), the differences between categories were perceived as greater than when the lines were not labelled. This 'categorisation principle' (Turner, 1982) is assumed to have a cognitive basis. The imposition of discrete category labels (a 'peripheral' dimension) on a continuous (focal) dimension of stimuli will lead to the accentuation of perceived intra-category similarity and of intercategory differences. This principle was later extended into the more social domain of attitude judgement (Eiser and Stroebe, 1972). Just as with perception of physical stimuli, it appeared that the labelling of attitude statements as belonging to one or other ends of a continuum led to the perception of more polarised, but not homogeneous, groups of statements than when no categories were provided.

These studies were concerned with the perception of entities with which subjects had no personal connections. In a 'paradigmatic' set of experiments Tajfel, Billig, Bundy and Flament (1971) examined the impact of categories to which subjects were themselves assigned on their behaviour towards others in their own or other categories. The so-called 'minimal group' experiments were designed to fulfil several criteria. These were to eliminate all face-to-face interaction, to have no direct conflict of interests and no prior history or group

membership (Tajfel, 1979, Chapter 4). Essentially the procedure is as follows. Subjects participate in a judgemental task such as estimating numbers of dots on a slide projection or stating preferences for paintings. Their answers are collected in by an experimenter who ostensibly codes or scores the responses. Subjects are then informed that a second study involves 'decision making' and that they will be required to allocate points or money to members of two groups. (These may be labelled as 'under-estimators' versus 'over-estimators' of dots, those who preferred Klee or Kandinsky paintings or according to some other criterion.) The subjects are then provided with booklets containing reward matrices. They are required to give points or money to one anonymous (numbered) member from each group on each page of the booklet. The only information they have is the category to which they themselves belong and the categories of the anonymous other persons. Therefore subjects have no idea which individuals share their category membership and are merely required to allocate rewards between members of their own (ingroup) and the alternative category (outgroup).

The reward matrices are described in Tajfel (1978). What is important about them is that they allow the researcher to observe the use of a variety of strategies used by subjects when deciding how to allocate rewards. There are 4 basic strategies: (1) maximising rewards to ingroup - 'Maximum Ingroup Profit' (MIP); (2) maximising rewards to both groups jointly - 'Maximum Joint Profit' (MJP): (3) 'fairness' of rewards to each group (F); and (4) maximising the difference between groups such that the ingroup wins over the outgroup, irrespective of the absolute levels of gain (MD). The relative power of these different strategies can be ascertained from subjects' responses on these matrices. Initial findings were that subjects opted for MD and MIP

but only rarely for MJP. There was also a clear tendency to use an F strategy. In short, as well as being fair, subjects tried to maximise ingroup profit but also to win over the outgroup.

At the time of the Tajfel et al. (1971) studies the explanations offered were in terms of normative pressures and the possibility that the (15 year old school boy) subjects had somehow learnt these competitive intergroup responses. Investigations of the bases of these effects will be discussed later. However, it is worth tracing the development of research into categorisation effects a little further. The effects of categorisation, in rendering a group membership salient, have considerable implications for the integration of the self-awareness and social identity approaches to behaviour, as will become clear in the next chapter.

Social categorisation

One position on the effects of social categorisation has been taken by Doise (1978). He has side-stepped the issues of motivation and ingroup bias and has tended to concern himself more with the cognitive aspects of social categorisation. He has argued the case that 'in an experimental situation, behavioural, evaluative and representational differentiations go together' (Doise, 1978, p. 162). The general idea is that,the clearer or more salient are the categories involved, the more likely it is that inter-category differences will be accentuated in perceptual and behavioural terms. Categories can also be defined behaviourally, such as when two groups are placed in competition. Doise and Weinberger (1973) conducted a study in which males found themselves either co-operating, implicitly competing or explicitly competing with females either as individuals, or in dyads, on a spatial motor task. It was predicted that the representations and

ratings of males and females would be accentuated by competitive conditions and where the categories were more salient (in dyads). However, category differentiation was predicted to be reduced due to a 'convergence' effect under co-operative conditions. These conditions were used in order that a categorisation model could be applied to the domain of realistic conflict theory (Sherif and Sherif, 1969), which will be discussed below. The idea was that the provision of a superordinate goal renders the perceptual categories (male and female) less relevant because behaviour is independent of (uncorrelated with) those categories. These hypotheses were confirmed.

While these data provided good evidence of inter-category differentiation they did not shed light on the presumed corresponding intra-category accentuation of similarities. Doise, Deschamps and Meyer (1978) asked subjects to rate three pictures of boys and three of girls using twenty-four trait adjectives. However, half of the subjects did not know that they would have to rate the outgroup pictures until they were asked to do so. The others were informed from the start that they would be rating both ingroup and outgroup photographs. Those who were aware that both categories were relevant from the start accentuated intra-category similarities more than those who were not. These results, along with those of a second experiment, prompted Doise et al. (1978) to claim that 'the same process is able to account for the accentuation of differences between social categories as well as for their subjective decrease within a social category' (p. 168).

However, there is other empirical evidence of the limits of categorisation effects (see Doise, 1978), particularly when multiple categories are involved. In an experiment which is also relevant to a later chapter Deschamps and Doise (1978, Experiment 2) split

groups of boys and girls also into arbitrary categories, red and blue. It was found that subjects were only biased in favour of their own sex group when that categorisation was not crossed by the colour categorisation. Deschamps and Doise argued that because of the 'accentuation of differences and similarities inside each of the categories and between the opposing categories ... the two opposite effects ... lead to a decrease in the extent of categorical differentiation' (p. 145). This did occur in Experiment 1 where age (young versus adult) and sex were crossed. In Experiment 2 it was the crossing of categories rather than their content which was emphasised. While the red/blue simple categorisation did not produce differentiation it inhibited inter-sex differentiation when colour and sex were crossed.

One way to interpret such findings is that the introduction of crossed categories diminishes the relative salience of each particular dimension of categorisation. Thus, rather than these crossed effects being due to incompatible structural processes they may be due to reduced amounts of processing of information distinctly relevant to each category. Some support for this interpretation comes from a study by Doise and Sinclair (1973). When collegiens and apprentices rated each other either with awareness of the two groups or actually facing one another in dyads there was greater differentiation than in inter-individual encounters or when there was no encounter with outgroup members. Such manipulations are similar to others which have attempted to affect the salience of categories (Skinner and Stephenson, 1981; Turner, 1975; Wilder, 1983) and which will be discussed in greater detail later.

Tajfel's (1982) inductive/deductive classification error model has been the basis of much of the work described. The inductive error

involves attributing category characteristics from those of exemplary members and the deductive error involves attributing characteristics to individuals from their category membership. In line with the discussion above,this model asserts that 'as category memberships become salient there will be a tendency to exaggerate differences on the criterial dimensions between individuals falling into distinct categories and to minimise differences within each of the categories' (Turner, 1982, p. 28). The issue which is then unresolved is: 'Why is the ingroup and not the outgroup represented and treated more favourably?' (Doise and Dann, 1976, p. 295).

SOCIAL IDENTITY THEORY

Many of the early minimal group studies were designed to assess a variety of explanations for ingroup biases and particularly for the tendency to use MD as a strategy. In these, the emphasis shifted from categorisation to more social variables, including interpersonal attraction (Billig and Tajfel, 1973), social norms (Billig, 1973) and self-esteem (Turner, 1975). It was at about this time that the concept of social identification appeared (Tajfel, 1972, 1974). Social identity is 'that part of an individual's self-concept which derives from his knowledge of a social group (or groups) together with the emotional significance attached to that membership' (Tajfel, 1974, p. 69; 1972, p. 31).

The theory which emerged offered a framework within which social identity operates. There is said to be a continuum of behaviour from, at one end, the completely interpersonal relations between individuals and, at the other, behaviour enacted solely in terms of intergroup considerations. These two extremes are thought to engage correspondingly different parts of identity. Interpersonal behaviour is mediated by

personal identity (idiosyncratic aspects of self such as personality, intelligence, etc.), whereas intergroup behaviour is mediated by social identity. This continuum (Brown and Turner, 1981; Tajfel and Turner, 1979; Turner, 1982) is said to have 'empirical reality', although it is more likely to reach the intergroup than the interpersonal extreme (see Brown and Turner, 1981, p. 43).

Intergroup behaviour, then, is characterised by the presence of discrete social categories within which the members behave similarly to one another and between which the members adopt a quite unified orientation towards (usually against) one another (Tajfel, 1978, Chapter 2). It is composed of cognitive, evaluative and affective components which are 'switched on' by different situations (Brown and Turner, 1981, p. 38; Turner, 1982, p. 20). More specifically:

> 'The number and variety of situations which an individual will perceive as being relevant in some ways to his group membership will increase as a function of (1) the clarity of his awareness that he is a member of a certain group; (2) the extent of the positive or negative evaluations associated with this membership; and (3) the extent of the emotional investment in the awareness and the evaluations' (Tajfel, 1978, Chapter 2, p. 39).

This model is clearly different from that of Doise in that it specifically links cognitive factors with motivational ones. The model proceeds from social categorisation to social identification on to social comparison and psychological distinctiveness. The first two features have already been described. Social comparison refers to Festinger's (1954) assertion that 'there exists, in the human organism, a drive to evaluate his opinions and abilities', principally within rather than between groups. However, Tajfel (1974) and later Turner (1978a, 1981a, 1982) argue that social identities can only be maintained by comparisons between one's own and other groups: 'No group lives alone - all groups in society live in the midst of other

groups ... and only acquire meaning in relation to or comparison with other groups' (Tajfel, 1974, p . 70). It is further assumed that 'we need to postulate that, at least in our kinds of societies, an individual strives to achieve a satisfactory concept or image of himself' (Tajfel, 1978, Chapter 3, p. 61). A person will therefore accept and adopt a social identification to the extent that it can make him or her feel positively about it. This led on to one of the more important assumptions about motivation made by the theory; that social categorisation leads to:

> 'a self-evaluative social comparison process ... one's self-esteem as a group member depends on the evaluative outcomes of social comparisons between the ingroup and the outgroup' (Turner, 1982, p. 80).

This 'strive to achieve or maintain positive social identity' (Tajfel and Turner, 1979, p. 40) leads people to make their ingroups positively distinctive from outgroups. That is, they try not only to make the groups different (differentiation) but to make their own group better than the other. It should be said that people select the dimensions on which these comparisons are made and restrict them to 'relevant relational attributes' of 'relevant comparison groups' (p. 41). Thus, the main interpretation to be placed on the use of MD strategies by minimal groups is that 'social comparison generates "spontaneous" intergroup competition' (Tajfel and Turner, 1979, p. 41). Indeed, this is regarded purely as 'social competition' since it does not necessarily involve real goals or any interdependence between groups. Social competition is 'motivated by self-evaluation and takes place through social comparison, whereas [real competition] is based on "realistic" self-interest and represents embryonic conflict' (p. 41). The social identity principle, then, is that: 'Social categorisation <u>per se</u> causes intergroup discrimination through its impact on

self-perception' (Turner, 1981, p. 82).

The distinctiveness of the social identity approach

One of the concerns of the social identity theorists has been to demonstrate that their approach is more parsimonious than the alternatives when accounting for discriminatory intergroup behaviour. For example, Tajfel (1978; Tajfel and Turner, 1979) has been particularly critical of the frustration-aggression explanation of intergroup conflict (Berkowitz, 1962) on the grounds that it is absurd to explain aggression on behalf of a group in terms of processes not involving that group. To argue that relations between groups are ultimately reducible to problems for the psychology of the individual is naïve, according to Tajfel (e.g. 1978, p. 167) because such a view leaves no room for long term social movements or the idea of increasing identification with a group as a consequence of intergroup behaviour. Brown and Turner (1981) criticise both the belief-congruence approach (Rokeach, 1968) and the contact hypothesis (Pettigrew, 1971) of intergroup relations because both assume that circumstances which seem to facilitate interpersonal harmony will do so even when crossing intergroup boundaries. Brown and Turner (1981) suggest that changes at the individual level are more likely to be the effects than the cause of changes in intergroup relations.

There has also been some effort to demonstrate the inadequacies of functionalist or instrumental explanations of intergroup behaviour. Realistic conflict theory (Sherif and Sherif, 1969) has received particular attention (e.g. Brown, 1978, 1983; Brown and Abrams, 1982; Doise and Sinclair, 1973; Tajfel and Turner, 1979; Turner, 1978a, 1978b) and behaviour in the minimal group experiments has been regarded as providing important evidence that real conflicts of interest are not

the sole cause of discriminatory intergroup relations (Turner, 1978a).

Individualistic explanations of intergroup relations seem to be discrepant with observable intergroup behaviour in two other important ways. First,the principles of equity which seem to prevail in interindividual encounters appear to be inhibited in intergroup encounters even when personal outcomes are not involved (cf. Walster, Walsterand Bersc heid's [1978] first principle that individuals will try to maximise their own outcomes). Second, interpersonal attraction, similarity and (hence) balance principles do not seem to affect intergroup behaviour in the same way as interpersonal behaviour. In particular, the assumption of social comparison theory that people will wish to compare themselves with similar others since 'if the only comparison available is a very divergent one the person will not be able to make a subjectively precise evaluation of his opinion or ability' (Corollary 111B, Festinger, 1954, p. 121) is challenged. Tajfel counters with the claim that 'in the case of intergroup comparisons the requirements of social identity push towards comparisons between groups which may be highly dissimilar and dichotomously separate' (1978, p. 74). But possibly the clearest interpretation would be that intergroup differentiation will be strongest between similar groups (who are trying to attain distinctive identities) whereas interpersonal affiliation will be strongest between similar individuals (Schachter, 1959). Hence the purposes of intergroup and interpersonal social comparisons may differ but it is still likely that similar rather than dissimilar others will be more relevant (cf. Brown, 1984a; Turner, 1978b).

Social identification and reference groups

Social identity theorists have claimed that these alternative

approaches 'deny the psychological reality of the group; misconstrue group processes as in opposition to individual rationality; and disconnect the individual from social reality and produce theories difficult to contextualise in society' (Turner and Giles, 1981, p. 32). However, this position may represent the individualistic approaches too simplistically as well as failing to recognise the contribution of sociological and social psychological research into reference groups. Reference group theories (Hyman and Singer, 1968) incorporate some of the basic tenets of social identity theory and hence it is worth examining some of the ideas developed in that body of work. An additional reason for discussing reference group theory here is that it is a point of convergence between the content of social identity theory and self-awareness theory.

The term 'reference group' was coined by Hyman (1942) and was later defined by Sherif (1953),who characterised reference groups as 'those groups to which the individual relates himself as a part or to which he aspires to relate himself psychologically' (Sherif, 1968, p. 86). Such a definition does not seem to fall foul of Turner and Giles' criticism of the limitations of individualistic theories. Indeed, reference group research developed in both inter- and intra-group perspectives. Merton and Rossi(1968) in re-examining Stouffer's (1948) study of the American soldier explicitly regarded the aim of reference group theory as looking at the 'determinants and consequences of those processes of evaluation and self-appraisal in which the individual takes the values or standards of other individuals and groups as a comparative frame of reference' (p. 35). A quite clear differentiation was made between membership groups and reference groups. In a similar vein to the message offered by Tajfel and Turner, it was stressed that subjective or psychological associations with groups

could be the focus of interest, rather than objective relationships between individuals and groups.

Where reference group theory and social identification theory differ is in their accounts of group based behaviour which is unfavourable towards the membership group. Social identity theory assumes that individuals adopt a simple orientation towards a membership group. If the group does not allow for a positive sense of identity a person may try to leave it and join a superior group (a strategy labelled 'social mobility') or may attempt to alter intergroup relations such that the ingroup can be evaluated in a positive way relative to the outgroup (social change). Reference group theory, on the other hand, allows for public behaviour based on group membership while private attitudes or preferences may be related to those of a different group.

Kelley (1968) distinguished between two types of reference group. Normative reference groups are those which actually provide rules and norms as well as mediating rewards for complying with those norms. He offers the example from Stouffer's study of the American soldier of combat veterans who had a strong group code against any tendencies of younger recruits to glamourise going into battle. To gain acceptance in this group the recruits had to adopt the attitudinal norms of the veterans. The second type of reference group is 'comparative'. Comparative reference groups are those which serve to locate 'a standard or comparison point against which the person can evaluate himself as others' (Kelley, 1968, p. 82)[1]. In contrast, social identity theory presumes that identification with a group necessarily entails both normative and comparative reference processes (see Turner, 1982, and also Chapter 3 of this thesis). The separability of the two processes in intergroup behaviour is of interest since self-awareness theorists have stressed the idea that public self-attention seems to

raise a person's vulnerability to normative pressures. If intergroup discrimination is simply normative, then it should be increased when public self-focus is heightened. The extent to which discrimination is normative may, of course, vary depending on the intergroup context.

Another distinction is that between positive and negative reference groups. Newcomb (1947) adopted this distinction when explaining attitude shifts among students at Bennington College. These shifts represented adherence to or rejection of the attitudes held by various social groups, including parents, and the Bennington student community. In some ways the concept of negative reference groups (those from whose norms and values we seek to distance ourselves) has advantages over the simple notion of outgroup as used by social identity theory. For it is possible to reject strongly one set of values - to differentiate oneself from a group - without necessarily adhering to a specified other set. That is to say, reference group theory does not regard reference group behaviours as being necessarily an inter group phenomenon. For example, it is possible to reject the views of the National Front without identifying with a specific ingroup. Conversely, it is possible to support and adhere to the norms of the Society of Friends without recourse to comparisons with a specific outgroup. Therefore, maintenance of a satisfactory self-image as a group member need not always be contingent upon the attainment of positive distinctiveness.

In general, however, reference group theory proposes very similar cognitive and motivational processes to social identity theory. For example:

> 'The individual chooses a normative reference group so that in fantasy or ultimately in fact he can feel himself part of a more favoured group ... and, thus anchored, he has a ready made perspective to order the distressing complexities of the environment. For social comparisons

'he chooses a group so as to enhance his self-regard or protect his ego.'

Furthermore,

'situational factors may heighten the salience of a membership group and increase the likelihood of its being used as a reference group whose perceived norms then affect some specific sphere' (Hyman and Singer, 1968, pp. 13-15).

While reference group theory can include processes such as relative deprivation (Runciman, 1966) under its umbrella, it has the advantage, along with social identity theory, of not relying on a state of conflict or interdependence of outcomes between groups. On the basis of the quotation above, it too would predict social competition under conditions where membership groups were placed alongside a comparison reference group. It would also allow the prediction that an MD strategy would be used in a minimal group situation. On the other hand, while social identity theory predicts that the drive will be towards intergroup comparisons, reference group theory also encompasses the possibility that a person might orientate towards only one of the two groups, without particular regard to the other[2].

Intergroup, intragroup and interpersonal aspects of intergroup behaviour

Brewer (1979) has discussed the locus of bias in minimal group experiments and points out that,where bias is calculated as a difference score (ingroup rating minus outgroup rating), it is impossible to determine whether an increase represents more ingroup support, more outgroup derogation or both (e.g. Doise and Sinclair, 1973; Ferguson and Kelley, 1964). It seems that competitive conditions may increase outgroup derogation (Rabbie, Benoist, Oosterbaan and Visser, 1974) but that in the 'majority of studies ... increases in bias are associated with

enhanced ingroup evaluation, whereas outgroup ratings remain relatively constant (Dion, 1973; Rabbie and Horwitz, 1969; Rabbie and Wilkens, 1971; Ryen and Kahn, 1975; Stephenson, Skinner and Brotherton, 1976; Wilson and Miller, 1961; Worchel, Lind and Kaufman, 1975)' (Brewer, 1979, p. 321). Brewer goes on to argue then that ingroup bias involves making the ingroup distinctive from the outgroup rather than vice versa. This is said to be because 'members of the ingroup are perceived to be less differentiated from the self, while the distance between the self and outgroup members remains unchanged' (p. 322). She also feels that 'if one associates group identification with more general concepts of unit formation ... awareness of differentiated social groupings may be only one potential mechanism ... by which the self is included in a bounded social unit' (p. 322).

The possibility that ingroup biases may often reflect only an enhanced ingroup orientation poses problems for the interpersonal-intergroup continuum (Brown and Turner, 1981). Specifically, it means that when social identity is 'switched on' there may not be a corresponding shift to intergroup behaviour but merely to interpersonal behaviour within a new frame of reference. Intergroup differentiation caused by social categorisation could then be conceived of as an artifact of positive reference group behaviour rather than the need for positive distinctiveness[3].

The idea that behaviour lies on a continuum from interpersonal to intergroup is yet to be demonstrated empirically. However, it does not fit easily with the idea of reference group behaviour since, from that perspective, there is no inevitable outgroup for a given ingroup. Furthermore, it is possible to behave as an individual towards another person as a category member, or vice versa. For example, when asking a policeman for directions one is motivated by personal needs (to get

somewhere). The policeman, in contrast, is constrained by his group membership or role and has no personal reason to give directions. Both participants are typically aware of this. Since many institutions are designed to deal with individuals it is inevitable that many day-to-day interactions must involve simultaneous intercategory and interpersonal components. From this point of view, Stephenson's (1981) description of interpersonal and interparty dimensions as orthogonal seems better able to describe such behaviour than can the social identity model. Stephenson argues that in union/management negotiations there are often persuasive interpersonal styles in addition to the intergroup content of negotiations and which may have a major effect on their outcome. However, as with the public/private distinction it is unclear what happens (if anything) when both dimensions are low. At least the continuum model does not leave a person bereft of identity!

Although the social identity model does have limitations there seems little doubt that, for intergroup situations, it is of value. The results of minimal group studies point to such a conclusion and support the assumptions made in the designs of non-minimal group research. The importance of reference group theory is that it offers some useful qualifications and parameters in addition to those which social identity theory regards as determining intergroup behaviour. Self-awareness theorists (e.g. Carver and Humphries, 1981) view compliant and normative behaviour as reflecting the association between the individual and the group. Although this may be reference group behaviour it is quite compatible with a social identification model. It seems, therefore, that the same behaviour is open to a variety of interpretations, and that the social identification approach might usefully accommodate some of the more individualistic concepts available in social psychology.

The following section represents an attempt to weld together some social and individual processes, and suggests that some of the self-regulatory processes cited by self-awareness theorists could plausibly play a part in intergroup behaviour.

ALTERNATIVE MOTIVES FOR INTERGROUP BEHAVIOUR

So far intergroup behaviour has been described as a phenomenon which requires a separate theory from other sorts of behaviour. In this section it is suggested that some more general social psychological processes may be influential in intergroup behaviour. This discussion will consider one model of outcome evaluation (equity theory) and two models of self-evaluation (reactance and dissonance). Research on intergroup behaviour has not accorded any of these perspectives particular importance. However, given that they seem to be processes which are influenced by variations in self-awareness (e.g. Carver, 1977; Carver and Scheier, 1980; Greenberg, 1980, 1983a; Reis and Burns, 1982), it is worth showing how they might function in intergroup contexts.

Equity theory

One of the central tenets of equity theory is that, when allocating rewards, people will strive at equalising the profit to input ratios of two entities, and when these are not balanced there will be a drive to restore a balance (Walster, Berscheid and Walster, 1976). As far as groups are concerned, they will maximise collective rewards by evolving accepted systems for equitability but sustain themselves by rewarding their more equitable members and punishing the non-equitable ones.

It has been pointed out (Caddick, 1981, 1982; Ng, 1981,1984) that in

minimal and other intergroup situations there is a clear tendency to favour ingroup in terms of profits, even though ingroup and outgroup inputs are ostensibly equivalent. It has been stated that 'minimal groups are not both fair and discriminatory - they are discriminatory, but to varying degrees' (Turner, 1980, p. 143) and more assertively 'minimal groups are never fair but always discriminatory' (p. 131).

Caddick's (1981) review cited work by Commins and Lockwood (1979) and Turner and Brown (1978) as well as by himself, which showed that where two groups are in an inequitable relationship there are moves to restore the equity. Despite the drawback that this conclusion was clearly not applicable to the minimal group situation, Caddick concluded: 'While it is doubtful that intergroup equity is little more than an experimental artifact, equity effects will be seen to be strongest where the opportunities for communication, scrutiny and influence are maximal' (p. 24). It could be suggested, however, that under such conditions the relations are at the interpersonal end of the person-group continuum and can thus no longer be regarded as intergroup behaviour.

Brown (1979) notes that many of the tenets of equity theory have analogous concepts in social identity theory. For example, equity theory's first proposition is that individuals will try to maximise their own outcomes - similar to that of social identity theory's 'need for positive distinctiveness'. Despite some apparent similarities of the predictions which the two theories might make, Brown points to three important limitations of equity theory. First, intragroup relations may tend towards equality rather than equity (Deutsch, 1973) and in any case equity may not be the most important determinant of (particularly non-economic) behaviours. Intergroup behaviour, especially that between minimal groups, is usually competitive and

directed towards attainment of superiority. A further problem with equity theory is that it does not provide an historical basis for individuals' perceiving a relationship as existing between one another. Brown (1979) argues that, through concepts such as social mobility and social change, social identity theory 'suggests how and when the comparisons that comprise the relationship are likely to be made in the first place' (p. 102).

A third problem is that equity theory has no explanation for the fact that subjective perceptions of equity or inequity may reflect neither observable events nor be reciprocal between parties. In contrast, social identity theory does try to account for these factors.

Although it seems difficult to reconcile intergroup discrimination with the propositions of equity theory, this does not mean that the contribution that such a perspective might make should be ignored. As suggested by Ng (1982), we cannot be sure that intergroup reward allocations refute explanations in terms of equity. The awareness that the final amount of ingroup rewards was dependent on joint behaviours of the two groups in minimal group studies would make it 'likely that the allocators of both groups had anticipated bias from the other - and that,if the expected bias were unchecked, allocations would become inequitable in favour of the opposite group' (Ng, 1984, p. 4). Thus, according to this explanation, ingroup bias is an artifact of attempts to prevent inequity.

The position taken by Ng (1982, 1984) and by Caddick (1981) is appealing since it fits well with both social identity theory and equity theories. Furthermore, several other theorists have proposed that there may be two 'generic norms' operating in minimal intergroup situations. One norm is to be fair and the other is to support the

ingroup (Billig, 1973; Branthwaite, Doyle and Lightbown, 1979; Brewer and Silver, 1976; Tajfel et al., 1971; Tajfel and Billig, 1974), although doubt still remains as to the presence of a fairness norm (Turner, 1980).

Much of the debate hinges on a rarely explicit assumption - that intergroup reward allocation is intergroup behaviour. For example, Tajfel and Billig (1974) assert that maximum difference strategies 'had no utilitarian value for the subjects themselves, since they were giving money to two other people' (p. 161). Implicit is the idea that there is no individual gain in the reward allocation; that it is all based on category identification and differentiation.

However, minimal intergroup discrimination can be interpreted as intragroup oriented behaviour (as was also suggested above). Specifically, maximising rewards to ingroup members and also ensuring that ingroup members do relatively better than outgroup members may be a response to the greater contribution made by ingroup members' characteristics to the subjects' self-concept. Those who share one's attributes may be seen as more deserving relative to those who do not. Furthermore, it may be that other ingroup members can be expected to see things the same way, and thus there would be an implicitly reciprocal duty amongst ingroup members to reward each other more than they do outgroup members, whose 'inputs' are of less worth. This kind of interpretation fits in well with Brewer's (1979) proposal that subjects orientate the group around the self rather than vice versa. Also it can be quite comfortably incorporated into the social identification model since the need for positive distinctiveness and for maximisation of own outcomes are both satisfiable within equity terms. What has been suggested here are two mechanisms by which equity principles operate in minimal intergroup situations. To reiterate: one is the,possibly normative,

expectation that the outgroup will be biased (Ng, 1982, 1984) and the other is that ingroups' 'inputs' are of greater value since personal outcomes are dependent on all ingroup members giving each other greater rewards.

The first of these mechanisms appears to lack empirical support. For example, Billig (1973) found little in the way of anticipated intergroup bias and St. Claire and Turner (1982) found that,when subjects were asked to anticipate the behaviour of minimal group members, they predicted a greater degree of intergroup fairness than actually occurred among group members. Confidence in these data is somewhat eroded by Calland and Manstead's (1984) finding that predictor subjects were accurate though, in a similar experiment to St. Claire and Turner's.

The second mechanism, although more complex, is also more plausible. There is evidence that, irrespective of competitive or co-operative orientations, ingroups persistently evaluate (and perhaps perceive) their own products or characteristics as being superior to those of outgroups (Blake and Mouton, 1961, 1962; Ferguson and Kelley, 1964; Rabbie and Wilkens, 1971). If ingroup inputs are greater than outgroup inputs then so should ingroup rewards be greater than outgroup rewards. The individual wishing to maximise his or her outcomes can be more sure of doing so through intragroup equitability than through intergroup equitability since he or she can have greater certainty that other ingroup members will regard ingroup inputs favourably than that outgroup members will.

All this discriminatory behaviour occurs against the clear backdrop of fairness. Perhaps it would be reasonable to suggest that, while intergroup discrimination results from intragroup equity behaviour, intergroup fairness reflects intergroup equity behaviour; such a proposition is backed by Brewer's (1979) observation that outgroup

derogation is much rarer than ingroup favourability as a source of ingroup bias.

A major problem with an equity theory account of intergroup behaviour is that it does depend on people over-evaluating the worth of ingroup inputs. The same problem that confronted Doise and Dann (1976) reappears - why should they do this? While the explanation given above is sufficient it is less parsimonious than that offered by social identity theory since it can explain reward allocations, but not the biases in perception of inputs. In other words, equity may provide <u>standards</u> for intergroup behaviour, but does not seem to provide an obvious motive for the initial bias. Therefore it is likely that equity considerations come into play at the <u>end</u> of the sequence outlined by Tajfel and Turner (1979) to explain minimal intergroup discrimination. This possibility is shown schematically, below:

$$\text{Categorisation} \rightarrow \text{Identification} \rightarrow \text{Comparison} \rightarrow \begin{matrix}\text{Intragroup equity)} \\ ) \\ \text{Intergroup equity)}\end{matrix}$$

Here, the effects of social identification are twofold. The difference from Tajfel and Turner's (1979) original formulation is that people adopt the <u>social</u> norm of equity to determine their actions rather than behaving as if there are no rules (other than one's own desire for positive self-esteem). In sum, what equity theory does for the analysis of intergroup behaviour is to provide a socially acceptable means of expressing ingroup biases.

Reactance and dissonance theories

Clearly, the contribution of equity theory to the social identification model is one which assumes people are rational or at least contemplative of the relations between groups or objects. In contrast, both reactance theory (Brehm, 1966, 1972) and dissonance theory (Festinger, 1957) are

based on assumptions about motivation and drive. These two theories also differ from equity theory in that they are concerned with personal rather than interpersonal processes - equity can only exist between people, whereas dissonance can easily reside within a person.

It is fairly easy to see how a person with insufficient justification for being in a group might experience dissonance over having to act as a group member. It is quite possible that subjects in experimentally created groups are in just this position. Take, for example, the minimal groups produced by Billig and Tajfel (1973) who assigned membership by the toss of a coin. With such a flimsy 'reason' for belonging to a group the subjects might well have experienced a dissonance between the required behaviour (intergroup rewarding) and their state (flimsy group membership). It is plausible that ingroup bias in such experiments reflects subjects' attempts to justify, by increased commitment, their group membership. One study of the effects of dissonance in intergroup contexts was conducted by Cooper and Mackie (1983). They either forced or asked Ronald Reagan supporters to write pro-Jimmy Carter attitude statements. Half of the subjects were led to write statements which contradicted 'definitional' ingroup attitudes (like Turner's, 1982, 'criterial attributes'), whereas the other half were led only to contradict attitudes relevant to but not definitional of group membership. The outgroup (Carter supporters) was significantly more disliked, and there was less attitudinal change among high choice-definitional subjects in comparison with those in all other conditions. Such results suggest that group membership can be such a strong element in any dissonance equation that people adapt their perceptions to it rather than compromising their ingroup commitment.

Cooper and Mackie's study assessed the impact of dissonance in

pre-established groups. As argued above, the initial commitment to a group may depend on the perception of having freely chosen to join it (or at least lack of coercion).

Two experiments by Turner, Hogg, Turner and Smith (1984) explored this possibility. In one experiment success and failure on a task were manipulated. Following failure, subjects who had freely chosen to join the group expressed greater attraction to the group than did those with no choice. A second experiment varied subjects' commitment to their group. Those with higher commitment were again more attracted to the group, following defeat in an intergroup competition, than were those with low commitment. In both experiments these results were reversed if the group succeeded or won. It was argued that increased group identification occurs in order to justify and explain voluntary behaviour (joining the group) which incurs costs.

However, it can also be the case that group cohesiveness can be high despite (perhaps because of) lack of choice about belonging to that group (cf. Jaspars and Warnaen, 1982; Tajfel, 1982, Chapter 16). Examples include the cohesiveness of ethnic minorities, of stigmatised social groups such as homosexuals, or the nationalism and patriotism of many British people. One process which seems relevant in explaining commitment to such groups is psychological reactance (Brehm, 1966).

Reactance theory proposes that when people feel that their free choices or options are under threat they will be motivated to restore their 'freedom'. It has been used as a model of 'bloody-mindedness' since much of the research generated has adopted disobedience as a dependent variable (e.g. Hammock and Brehm, 1966). An everyday example of reactance is the child who, although hardly able to keep its eyes open, steadfastly refuses to go to bed when told. Reactance can take at least three forms: re-establishment of freedom by enacting

the threatened free behaviour; increased attraction to 'forbidden fruits' or behaviours; and aggression towards the agent restricting one's freedom. Threats to freedom can take the form of direct orders or coercive attitude communications - for example, the statement: 'You have no choice but to accept that cigarettes cause cancer' would very likely elicit more disagreement than one beginning: 'It seems likely that ...'.

Ingroup bias in the minimal group paradigm could perhaps be described as a reassertion of subjects' freedom. The position taken by a reactance theorist might be as follows: subjects in minimal groups are aware that, while they can make decisions, their own fate is in somebody else's hands. They have no way of knowing who will determine their outcomes, but they do know whether these others belong to their own category or not. What probably happens, therefore, is that subjects try to maximise ingroup profit and relative gain on the basis that this restores any freedom which the outgroup might attempt to limit. However, subjects also show many fair responses which might be a reaction against ingroup constraints on their behaviour. Some evidence for this interpretation comes from Turner (1975, 1978). Specifically, if subjects were awarding themselves in addition to ingroupers and outgroupers,they favoured themselves clearly over outgroupers but also slightly over ingroupers.

Brewer and Silver (1978) noted that minimal group studies tend to create implicitly competitive conditions. Brewer and Silver devised a situation whereby 3-person groups mediated intragroup rewards in such a way that each person received what the other two awarded him. (This could be considered to be restriction from within the group.) The intergroup reward structure was then manipulated so as to be independent, competitively or co-operatively interdependent. It was found that

relative gain strategies were used in the independent or competitive conditions, but much less so in co-operative conditions. A reactance theory explanation would be that this was because threat to personal outcomes was perceived as coming in equal part from all others under co-operative conditions, whereas it is perceived as coming more from the outgroup (with whom the subject has no interaction) under other conditions.

While dissonance and balance theories may be helpful in our understanding of commitment to an ingroup (Worchel, 1979), it seems that the notion of reactance can help to explain outgroup derogations since, at least in interpersonal contexts, aggression towards a threatening agent has been found to follow the arousal of reactance (Worchel, 1974)[4]. Given that both dissonance and reactance processes are intensified under conditions of self-awareness, it would seem reasonable to suppose that the effects on intergroup behaviour would also increase under such conditions.

The next chapter will assess some of the more cognitive elements in the equation describing the psychological determinants of intergroup behaviour. For the present, what we have are a number of social and personal forces which can be subsumed under a social identification model. Social categorisation may give rise to dissonance, and hence strengthened identification with one's category. Perceived dependence on outgroups may elicit psychological reactance, motivating differentiation from, and discrimination against, such outgroups. However, such behaviour may well be moderated by equity considerations.

SELF-ESTEEM, IDENTIFICATION AND INTERGROUP BEHAVIOUR

Having discussed categorisation, comparison and behaviour it is now appropriate to examine the most crucial part of the model -

identification. Perhaps the basic question is 'Why identify at all?'. One reason seems to be that many group memberships may mediate rewards (Lott and Lott, 1965). At a symbolic level, one can only win the F.A. cup by identifying the team aims as one's own (cf. Cialdini et al., 1976). Groups may also be composed of many like-minded individuals and thus bolster one's security, 'balance' one's attitudes and provide emotional support (Schachter, 1959). Such accounts of identification tend to be rejected by social identity theorists as being over individualistic. Nevertheless, the dynamic model they propose always returns to the individual's need for a positive self-image. If the group cannot provide a positive self-evaluation the individual may seek to leave it (Tajfel and Turner, 1979; Turner, 1982), to re-evaluate it or to create new dimensions on which to make intergroup comparisons. The model is unclear as to at which point the need for positive self-image and identification with the group meld. One possibility is that, given a social categorisation, the need for self-esteem leads to ingroup identification so that one can then make social comparisons using criterial attributes of the group rather than the self. Another is that the need for positive self-image in terms of those attributes is caused by rather than a cause of identification with the group.

These two possibilities differ primarily in that the former leads to an individualistic and the latter to a collective motive for ingroup bias. This is the difference between self-serving (what can I get from this group) and self-sacrificing (what can I do for this group) modes of self-enhancement.

There is some limited evidence for the 'self-esteem' motive proposed by Turner (1981, 1982): ingroup bias occurs 'not because there is any realistic conflict of group interests but simply to

differentiate themselves and maintain a positive social identity for their members' (Turner, 1982, p. 34). One of the few direct tests of this proposition was conducted by Oakes and Turner (1980). They predicted that 'minimal intergroup discrimination [will] increase subjects' self-esteem' (p. 295). In their experiment half of the subjects engaged in a minimal group paradigm session while the rest read a newspaper article instead. Following this all subjects were required to complete three measures of self-esteem: the Twenty Statements Test (TST) (Kuhn and McPartland, 1954), Julian, Bishop and Fiedler's (1966) version of the semantic differential and Rosenberg's (1965) self-esteem scale. The minimal group subjects used MIP and MD as expected. It was found that these subjects reported higher self-esteem on the TST and SD but not on the RSS relative to control subjects. An open verdict was passed on two alternative explanations of the results: 'Self-esteem may increase ... either because subjects discriminate or because such behaviour makes their group memberships salient' (p. 300).

There is another way of viewing Oakes and Turner's results. An examination of the TST means reveals that control subjects seemed to report negative self-esteem. These means are represented below (the scale ranges from +1 to -1):

		Measure
Condition	TST	Factor score
Experimental	0.18	0.41
Control	-0.84	-0.41
F, df = 1,46 ps <.01	10.96	9.39

It is clear that on the TST the experimental condition subjects have only marginally positive self-esteem (probably not different from zero), whereas control condition subjects have much more obvious low self-esteem.

It is quite possible that something about the newspaper article or the newspaper (a Guardian article on arranged marriages) or possibly boredom actually temporarily deflated the self-esteem of control condition subjects. This problem is perennial in self-esteem research and the obvious remedy (to have a condition designed to induce low self-esteem) raises serious ethical issues for the researcher (Wells and Marwell, 1977).

A second flaw in the experiment was that there was no index of subjects' 'need' for a positive self-image,which is supposed to be the basis of intergroup discrimination. In other words, we cannot be sure that the discrimination and self-esteem of experimental condition subjects are causally related. Intergroup discrimination may raise self-esteem, but that does not mean that the need for positive self-esteem caused the discrimination.

Oakes and Turner's (1980) paper has been examined in some detail because it is the most often cited reference in support of the motivational part of social identity theory. The assumption of self-esteem motivated behaviour has also received criticism from other quarters (Paicheler, 1981). Turner's (1981b) reply seems almost contradictory to the statement of the Tajfel and Turner (1979) model of intergroup behaviour. He claims: 'Self-esteem and ingroup bias are not key concepts at all ... They are only relevant as evidence ... I do assume that there is a need for positive self-esteem, not as an axiom, but on the basis of extensive research (into, for example, social comparison, cognitive dissonance, interpersonal attraction, self-presentation, defensive attribution, and so on)' (Turner, 1981b, p. 113). For some reason no specific references are to be found for any of this 'extensive' research.

This is a hardly satisfactory treatment of what, after all, is

supposed to be the fundamental motivational component of social identity theory. It is doubtful whether the self-esteem part of the theory can remain in its present form (Abrams and Hogg, in submission). No successful replications have been published and other studies using self-esteem (e.g. Hogg et al., in press; Turner, Hogg, Turner and Smith, 1984; Wagner et al., in press) have not given any clear indication of how self-esteem affects intergroup behaviour. One problem is that the theorists have not specified what it is about the self which is to be made positive. For example, Tajfel and Turner (1979) refer to a striving 'to maintain or enhance their self-esteem: they strive for a positive self-concept' and thus 'a positive social identity' (p. 40). Turner (1982) further distinguishes between 'the self-concept as a cognitive structure and the self-images which are produced by the actual functioning of that structure' (p. 19).

The problem arises that a positive self-image (be it a social or personal image) may be discrepant with core aspects of the self-concept. For example, the act of beating up a member of a different gang at school provides a positive self-image as a gang member but an extremely negative one as a 'moral' or 'good' individual. It is therefore always possible that there will be a conflict between the immediate self-image and the enduring self-concept following intergroup discrimination. This conflict may be experienced as pride over ingroup superiority versus shame over acting unjustly.

Apart from the argument that there are two sides to the coin for self-esteem as a discriminating group member, the very notion that individuals are striving to enhance or maintain their self-esteem as positively as they can is open to doubt (cf. Wells and Marwell, 1977). In particular, the more empirical of self-esteem theories (Deaux, 1972; McGuire and Millman, 1965) simply state that individuals strive to behave

in a manner which is consistent with their self-esteem. Indeed, self-awareness researchers have found that self-esteem is used as a reference point and an index of how confident people should be when confronted with novel situations (Brockner, 1979a). Although it is tenable that people may generally have a need to improve themselves (Maslow, 1954; Rogers, 1951) it is unlikely that this directly leads to continuous attempts to make self-images positive (Gergen, 1982) since these self-images are transitory and sometimes temporary parts of the self-concept. As such it is rarely worth investing too much in any one image.

If self-esteem is not the only motive for ingroup biases and intergroup differentiation it is necessary to provide alternatives. Part of the problem with the self-esteem formulation as offered by Turner (1978a, 1982) is that it posits a simple bipolar evaluative dimension along which a person places his or her social identity. However, Wells and Marwell (1977) suggest that affective and evaluative components of the self or selves are distinguishable - one could feel good about failing or feel bad about succeeding; such would be the experience of winning a race but thereby causing distress to a competing friend. More fundamentally, however, self-esteem may simply be irrelevant to many intergroup and other behaviours. Many intergroup encounters involve real conflicts with real gains and losses over even symbolic goals. For one group of football supporters to beat up another might assure physical safety from that other group in future. Failure to rise to the challenges of an opposing group can mean long-lasting subordination. Such are the nature of many management/union relations. If the goals involve personal well-being, wealth or security then self-esteem as a group member must surely come as an effect rather than the root cause of intergroup relations.

What is needed, therefore, is a slightly enlarged model of the motivational processes in intergroup relations. Such a model would have to incorporate the self-esteem motive proposed by Turner (1978a) but would also have to encompass at least the two alternatives discussed earlier. Dissonance theorists have already suggested that the self-concept is a crucial part of the dissonance equation (Aronson, 1979) but they have not restricted their discussion to self-esteem. Reactance theory refers to a 'threat to freedom' which may implicate self-esteem but may not. Both perspectives, however, assume that there is some kind of need for defending the ego, protecting the self from attack or abuse and for a state of equilibrium. It is this assumption that I wish to pursue and briefly develop.

Tajfel's early account of the motivation for intergroup behaviour drew on Bruner's (1957) work on value and perception. Tajfel (1959) referred to the 'emotional or, if one prefers the term, value relevance of the classification to subjects' (p. 20). A category can be imbued with value by becoming familiar - which enhances its subjective utility (Tajfel and Wilkes, 1963). In extending this reasoning to social categorisation, Tajfel stated that: 'This 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).

Although the need for coherence or clarity of self-concept was later replaced by an hypothesised need for self-esteem, the earlier formulation still holds certain attractions. In fact, social comparison theory (Festinger, 1954) also includes two motivations: one for self-knowledge and the other for self-esteem (a view which was endorsed in Reykowski's [1982] review of social motivation).

Pragmatic self-preservation

It may be that the need for coherence reflects a more general need to have a stable and predictable self-conception (Swann and Ely, 1984). It can be proposed that the general motivation with regard to the self or selves is that of preservation. That is, people's first concern will be to preserve aspects of themselves in a satisfactory state in any given situation. This is done by two mechanisms - cognitive switching (as with the switching on or off of social identity) and self-portrayal. This model assumes that the self is multi-faceted rather than unitary (Gergen, 1982; Greenwald, 1982) but that it is also organised hierarchically (Carver and Scheier, 1981). In plain language, although there are many different aspects of the self, some are more enduring and fundamental than others to our sense of selfhood and our social being. This means that, while we may assess ourselves via transitory social comparisons and situationally specific standards, we may also maintain and develop a relatively stable self-system (Markus, 1977, 1984; Markus and Sentis, 1982; McGuire and McGuire, 1982). Just as certain social standards or norms take precedence over others, so there are personal values which take precedence over others. These 'values' are what Carver and Scheier (1981a) locate at the top of their self-regulatory hierarchies and call 'principles' and 'system concepts'. The present discussion places 'self-preservation' very high on the tree. It is a systems concept, a general way of organising behaviour in relation to the self.

The motivational component of a self-preservational system is to keep each aspect of the self in a satisfactory state. This can be done in a variety of ways. First, if a given aspect of the self is on show to others or if it is particularly salient one may try to promote and support that aspect of self. Taking the image of self as a diamond,

one may try to present the diamond in such a way that a particular facet catches the light. Examples of this come from the literature on self-serving biases in attribution (Zuckerman, 1979), as well as the finding in social comparison research that people try to make comparisons whereby they can positively evaluate themselves (Suls and Miller, 1977). But an important implication of a multi-faceted model of the self is that a person may have little cross-situational consistency. Indeed, he or she can be 'promoting' discrepant aspects of the self with equal vigour in different situations. The switch from personal to social identities proposed by social identity theorists is an example of this.

However, self-promotion would be only one function of a system designed to preserve the self. The second function would be to operate the 'switch' mentioned above. Take, for example, the footballer who 'kicks hell' out of his opponent on the field but enjoys a friendly chat and drink with that opponent after the game. These states may correspond to intergroup and interpersonal modes of interaction, but many social psychological theories would find the discrepancy hard to account for (for example, dissonance and balance theories). Perhaps a good way to describe what happens, therefore, is that the discrepant behaviours are rarely introduced into the same equation. Returning to the diamond analogy, as the interpersonal facet of self is brought into the light, the intergroup one is sometimes shaded. Little conflict is experienced because the self-preserving system, by illuminating one self-aspect, simultaneously shades the other and inhibits comparisons between them. This model allows for minimal intergroup discrimination on the basis that it promotes the salient aspect of self at the same time as inhibiting feelings of guilt which might arise if another aspect were also being considered.

The functions thus far considered are primarily assertive. Another function of a self-preserving system would necessarily be defensive (cf. Arkins' [1981] acquisitive and protective self-presentation). Suppose that, having attended an 'away' football match, one is about to walk to the local railway station. While walking along one becomes aware that a rowdy group of 'home' supporters is following close behind. They are dressed in all the regalia and garb of the home team: scarves, hats, badges, rosettes, and (most important of all) some rather hefty looking boots. In terms of social identity theory all this should make one's group membership highly salient. Where social identity theory and a self-preserving motive part company is in the prediction of how one would behave in the situation described above. For social identity theory, if group membership is salient then intergroup behaviour ensues. However, a defensive tactic for self-preservation would be to conceal one's group membership from the outgroup so as to avoid intergroup conflict. This is precisely what many 'away' supporters do. They take off their scarves,hats and badges and thus reduce their identifiability as group members. So, while social identity is highly salient, the self-preserving value 'I do not wish to be harmed' makes overt behaviour appear discrepant with that identity.

I have just described an exercise in self-presentation (Arkin, 1981; Jones and Pittman, 1982) or impression management (Goffman, 1959). A self-preservation model also departs from these in that public behaviour is viewed not just as the unthinking, easy going, shallow pragmatism that is often assumed (e.g. Scheier and Carver, 1981). Rather, it is a strategy which deliberately obscures those facets of the self which are at risk or are endangered by a situation. The analogy is that, while the light strikes one facet (makes it salient), the

self-preserving system deflects it so as to emerge from another. Within social identity theory the security and stability of identity are used to predict intergroup behaviour (Tajfel and Turner, 1979; Turner and Brown, 1978). To some extent these factors may be predictive of whether a person will adopt an assertive or a defensive self-preservational strategy when social identity is salient.

It is also possible that the value a person places on each of his or her self-images varies. Perhaps those who are disposed to attend to public aspects of themselves will be more concerned to be socially accepted than will those who are disposed to concentrate on private aspects of themselves. Self-preservation in an intergroup context might therefore take different forms, depending on which aspect of self is being attended to. In general, the model is probably useful in so far as it raises several possibilities for behaviour in an intergroup context. It provides a way of combining self-awareness theory and social identity theory by superimposing the former on the latter. Intergroup behaviour is the consequence of the self-regulatory system's mediation of social identity with reference to a value of self-preservation.

It seems likely that minimal group experiments allow dissonance, reactance and equity considerations to influence behaviour. In real groups and real intergroup setting, however, it is probable that any feelings of dissonance, reactance or injustice,and self-esteem are less directly influential on behaviour. People must also take into account external constraints (such as the possibility of being sacked, attacked or blacked) and decide (a) whether to pursue intergroup behaviour in order to promote social identity and if so (b) how to manage that behaviour. Part of the argument put forward in this thesis is that self-awareness is a process which is necessary for the making of such

decisions.

SUMMARY

This chapter has presented a basic outline of social identity theory and has pointed out its compatibility with several other theoretical perspectives. A number of issues have been raised and it is worth recapping the main points. Social identity theorists distinguish their model from others by arguing that it is more 'social'. It deals with individuals qua group members and explains intergroup behaviour using the group as the level of analysis, rather than the individual. It has been suggested here that, while intergroup behaviour cannot be accounted for without reference to collective goals, there has not been sufficient attention paid to the psychological processes mediating such behaviour.

One problem for social identity theory is how group membership would influence behaviour in the absence of an outgroup. Reference group theory appears better able to deal with such a situation. Reference group theory is also capable of predicting behaviour in situations where two interactants are not acting reciprocally in terms of group memberships. However, reference group theory is compatible with social identity theory in many ways and it was important to relate the two since self-awareness theorists have only investigated instances of reference group behaviour. It will therefore be necessary to translate hypotheses which they have applied to reference group theory into the terms of social identity theory.

The second problem for social identity theory has been to explain the processes demonstrated by intergroup reward allocations in minimal group studies. It has been argued here that, in addition to the need for positive self-esteem and positive distinctiveness, there are other

variables of some importance which may impinge on intergroup behaviour. An example of a social normative variable was provided by an analysis of equity considerations in intergroup and intragroup reward allocation. In addition, two examples of motivational sources of bias were suggested: the dissonance aroused by insufficient justification for group membership; and the reactance caused by outgroup (or ingroup) control over own outcomes. It should be stressed that these variables are only possible influences. In any case they do not detract from the adequacy of the basic social identification model. Even when they are incorporated, it is still necessary to assume the existence of a social categorisation, and the definition of self in terms of that category. It is that which seems to be the initial (and crucial) step on the path leading to intergroup behaviour.

Consideration of these variables also introduces the problem that not all apparently intergroup behaviour actually is so. It is likely that ingroup bias may often be an artifact of ingroup support irrespective of outgroup ratings. This argument suggests that social categorisation may lead to intra- but not intergroup behaviour. Despite these reservations, it was pointed out that minimal group studies probably do engage intergroup behaviour.

The fourth general problem is that, even when an intergroup definition of identity is 'salient', it is unclear how behaviour will be affected. No direct link can be assumed between salience and behaviour. The link between a salient social identification and positive differentiation is weakened by the likelihood that not all intergroup behaviour is motivated by a need for positive self-esteem. A general motivational model based on the value of 'self-preservation' was offered as an example of a bridge between a salient identity and behaviour. Although this model could be applied to any aspect of identity it takes

into account the social context within which the identity is salient as the basis for predicting behaviour. The model is compatible with both social identity and self-awareness theories but is meant more as a sounding-board than as any kind of definitive statement. The idea is just to show how a range of alternative behaviours can be derived from a combination of social, personal and situational variables, in an intergroup context. An important assumption of the model is that behaviour is often pragmatic, and this would imply that some degree of self-reflection may be required[5].

This discussion leaves several important issues untouched. The purpose of the following chapter will be to fill in the picture and suggest how self-awareness theory can be applied to the expression of social identity in behaviour. The aim will be to show how social identity theory, deindividuation research and self-awareness theory can be brought together to provide a more complete description of group behaviour. There are three questions to be asked: how does awareness of self affect group behaviour; what is the role of 'salience' of a self-aspect in group behaviour; and can we properly describe such behaviour as being regulated in terms of distinctions such as those between personal and social or private and public selves? From a discussion of these issues specific hypotheses will be derived, leading to the empirical part of this thesis.

NOTES

1. Kelley regards normative functions as relating to motivational aspects and comparative functions as relating to cognitive aspects of behaviour. As such, these two components are similar to the identification and categorisation parts of the social identification approach.

2. In a minimal group situation, for example, if subjects merely regarded the ingroup as a positive reference group they would opt for MIP rather than MD. The fact that minimal group subjects opt for both MD and MIP suggests (in reference group terms) that the outgroup is being actively rejected and regarded as a negative reference group. It is likely that the form of reference is principally comparative since there appear to be no pre-established norms for group or intergroup action (Billig, 1973; St. Clare and Turner, 1982). This reasoning is in line both with Hyman and Singer's (1968) conclusion that 'the comparative reference group [works] through the intervening variable of the self and the normative more directly through the internalisation of what is perceived as appropriate behaviour' (p. 19) and with Turner's (1978a) assumption that behaviour in the MGP is essentially aimed at self-enhancement. However, a reasonable prediction from reference group theory is that, if ingroup norms were specified which explicitly rejected the use of an MD strategy, subjects would adhere to that standard, since a favourable self-image could be gained purely on the basis of ingroup acceptance (cf. Wetherell, 1982).

3. This possibility is acknowledged by Turner (1982) in his discussion of intragroup processes, which will be discussed in the next chapter. An important difference between Brewer's (1979a) and Turner's (1982) account is that the former assumes the self as a static entity around which other knowledge is organised, whereas the latter assumes that self-images can be varied and transitory. Hence for Turner it is possible to stereotype oneself in terms of the criterial attributes of one's group when group membership becomes salient.

4. If part of the definition of self as an ingroup member depends on the perception of 'common fate' (Lewin, 1948) or 'interdependence of outcomes' (Horwitz and Rabbie, 1982) then intergroup relations will be inherently reactive.

5. In a later chapter, the self-presentation approach will be considered in more detail, since it too stresses pragmatism. The self-preservation model regards self-presentation and self-definition as distinguishable conceptually but not phenomenologically. Hence, pragmatism can serve self-definitional concerns as well as answering self-presentational demands.

6. Abrams, D. (1981): Self-awareness and contingent social behaviours. Paper presented at the Annual Conference on Postgraduate Psychology, Durham, April.

CHAPTER 3

INTEGRATION OF PERSPECTIVES

In this chapter the aim is to bring together social identity theory and self-awareness theory. In doing so we shall reconsider two other perspectives: reference group theory and deindividuation theory. The debates and problems arising from the application of self-awareness theory to reference group behaviour and deindividuation are useful in illuminating the issues which are also problematic in applying it to social identity theory. Following a careful consideration of these, it will be possible to conclude the chapter with a statement of theoretical perspective and propositions.

DEINDIVIDUATION

Deindividuation research has its roots in Le Bon's (1893) work on the crowd. He asserted that the violence and chaos of crowd behaviour was associated with a mass submergence of the self and emergence of a 'racial unconscious'. He held that this primitive and bestial unconscious was particularly susceptible to release among the lower orders of society (i.e. the working classes). A psychological explanation for becoming immersed in the crowd was offered both by Freud (1922) and later by Fromm (1941). Fromm suggested that the emergence of excessive individuality led to experiences of isolation (cf. Durkheim's [1951] analysis of egoistic suicide), which motivated a ' return' to the group. Initially the concept of 'deindividuation' was based on a loss of, or lack of, 'individuation'. Jung (1946) defined individuation as 'a process of differentiation, having for its goal the development of the individual personality' (p. 561; quoted from Dipboye, 1977). Thus the basic conceptualisation of deindividuation

was as a loss of personal identity. These perspectives directly contributed to the first laboratory studies of deindividuation.

The first laboratory examination of the phenomenon was conducted by Festinger, Pepitone and Newcomb (1952). They asked subjects in small groups to discuss their feelings about their parents. It was found that there was a significant correlation ($r = -.45$) between the number of others who could identify a participant and the release of constraints on that person (i.e. the less people viewed each other as individuals, the more rash and daring were their contributions to the discussion).

Several other researchers also pursued the line that deindividuating conditions such as anonymity lead to the loss of restraints. The hallmark of that approach, then, is that there are aggressive or violent impulses which are somehow released and activated by immersion in the group (McDougall, 1927). Perhaps the best known work on deindividuation as a social psychological event was conducted by Zimbardo (1969). He specified the antecedents of deindividuation as being anonymity, large group size, diffusion of responsibility and the presence of coacting others. In addition to these variables he also suggested that the subjective world becomes altered. Specifically, he suggested that a lowering of self-consciousness occurs, resulting in a 'weakening of controls based upon guilt, shame, fear and commitment' (p. 259).

Dipboye's (1977) review of much of the research indicated that lack of identifiability and the wearing of nondescript uniforms leads to a greater propensity to aggress towards an individual victim (Dion, 1970; Donnerstein, Donnerstein, Simon and Ditrichs, 1971). Dipboye notes, however, the findings of Diener (1976) and particularly of Zimbardo (1969). In one of Zimbardo's studies Belgian soldiers were

less aggressive when anonymous, dressed in baggy clothes and hoods, than when identifiable. Dipboye's conclusion was that 'the inhibiting effects of anonymity seem more likely to occur in an established group or a group of acquaintances, since an individual is more likely to seek support from such a group than from a group of strangers' (p. 1060). Another possibility is suggested by Turner and Killian's (1957) emergent norm theory. This proposes that the cues provided by active or distinctive group members sets a norm which others tend to follow. However, there seems no reason to suppose that this norm will necessarily be aggressive.

Perhaps the most comprehensive conceptualisation of deindividuation is that provided by Diener (1980). He has placed a greater emphasis on the phenomenological aspects of deindividuation and has explicitly rejected the idea that anonymity is always associated with the deindividuated state. His 'definition' is as follows:

> 'A deindividuated person is prevented by situational factors present in a group from becoming self-aware. Deindividuated persons are blocked from awareness of themselves as separate individuals and from monitoring their own behaviour' (Diener, 1980, p. 210).

He regards the psychological state of a group member as being on a continuum from 'extreme self-awareness to a total prevention of it'. His model proposes that focussing attention on the group, perceiving it as a whole unit, physical activity and a 'high conscious-processing load' prevent self-awareness. This means individuals do not monitor themselves or retrieve norms and standards from long term memory; they do not reinforce themselves and they do not plan or think out their actions. Consequently, they are rendered susceptible to immediate stimuli, motivations and emotions. To quote again:

> 'People who are deindividuated have lost their self-awareness and their personal identity in a group situation ... Thus prevented from self-attention ... they become more reactive

> 'to immediate stimuli and emotions and are unresponsive to norms and to the long term consequences of their behaviour' (p. 210).

Anonymity, however, may not always give rise to such states (e.g. Zimbardo, 1969). In fact, anonymity can even serve to heighten self-awareness, if, for example, one is the only anonymous person amongst identified individuals. Diener (1980) cites the example of a masked bank robber in support of this reasoning. Furthermore, in his own research it was found that anonymous alone children stole fewer sweets at Halloween than did anonymous children amongst a group of others (Diener, Fraser, Beaman and Kelem, 1976). Diener argues that anonymity reduces the threat of punishment for transgression but that it does not reduce self-awareness. Referring specifically to the hood and robes type experiments conducted by Zimbardo, he suggests that such uniforms communicate non-verbally to subjects what the experiment is about (i.e. imply norms) which would combine with self-awareness to increase aggression (Carver, 1974, 1975). Alternatively, if the self-awareness dwells on internal standards, aggression will decrease.

Diener has invested considerable energy into demonstrating the importance of lack of self-awareness which is crucial for his theory of deindividuation. For example, Diener (1979) had people in groups of eight (of whom six were confederates) engage in group activities for half an hour. There were three conditions. In the Self-Awareness condition subjects wore name tags, were referred to by name and were asked to fill in personal questionnaires. Furthermore, the subjects wore overalls but the confederates did not. Subjects were also required to read out personal information to one another. In the individual Non-Self-Aware condition all participants wore overalls, had to rate jokes and had to press a pedal rhythmically (this manipulation was intended to direct their attention outwards). In the Deindividuation condition

the confederates also created a warm atmosphere, touched the subjects and all sang and swayed together in unison. Following these sessions subjects were asked to choose individually in which of 40 activities they would like to engage.

It was found that Deindividuation condition subjects reported feeling less self-conscious, acting more spontaneously and feeling more positive towards the group compared to subjects in the other conditions. They also chose to engage in more disinhibited behaviours. Important for Diener's hypothesis was the finding that Individual Non-Self-Aware subjects' responses fell mid-way between those of Deindividuated and Self-Aware subjects on most measures. The correspondence between low self-awareness and disinhibited behaviours was also confirmed by the results of a factor analysis. Lack of self-consciousness, group unity and lack of evaluation apprehension all loaded on the same factor. A second factor was labelled 'altered experience'.

Further evidence that 'the deindividuated person has lost the self in the group' (Diener, 1980, p. 230) comes from a study by Diener, Lusk, DeFour and Flax (1980). They found that, as group size increased, feeling self-conscious showed a corresponding decrease (but that the presence of observers produced increased self-consciousness). One problem with these three experiments is that increasing group size was also associated with lowered group influence over behaviour. This finding seems to be inconsistent with Diener's contention that deindividuated persons are more susceptible to the influences of immediate or environmental cues.

A further problem resides in the possibility that, although disinhibited behaviour may be associated with reduced self-consciousness, we do not know why: nor can we be sure that lack of self-consciousness is necessary to enable the disinhibition of behaviour. Particularly

in Diener's experiments it is likely that demand characteristics led subjects who were told to focus outward to report having felt less self-conscious than those who were told to focus inward. Indeed, in the experiments mentioned above (Diener et al., 1980) it was found that 'the chronic trait forms of self-consciousness measured by the personality scale does not predict the intensity of self-consciousness felt in a highly evaluative situation'. In other words, even those who were supposed to be highly self-conscious did not report experiences different from lows. Crucially, for Diener's theory, dispositional self-consciousness was not predictive of behaviour. Thus it seems that the view of deindividuated behaviour as stemming directly from reduced self-regulation in the group is rather dubious.

Diener's formulation suffers from a limitation of perspective. It has, however, been the basis of several interesting developments. In particular, it has been suggested that different aspects of the self may have different influences in deindividuation. One approach has been to ask whether structural differences in self-concepts render people differentially susceptible to immersion in a group. Nadler, Goldberg and Jaffe (1982) identified two groups of subjects. Using Witkin, Goodenough and Oltman's (1979) rod and frame test, they put highly differentiated (separate from the environment) and undifferentiated (defined by their environment) subjects in anonymous or identifiable conditions with two confederates. These confederates set norms either by donating to a cause or by stealing sweets. It was found that, while self-differentiated subjects behaved similarly in all conditions and felt equally self-conscious in all conditions, the undifferentiated

subjects followed the behavioural norms when anonymous more than when identifiable and felt less self-conscious in the former conditions than in the latter. Thus, it was argued, only among undifferentiated persons does anonymity lead to deindividuation. However, the interpretation of results is problematic since increased adherence to norms is supposed to result from self-awareness (Wicklund and Duval, 1971) but increased disinhibited behaviour results from the opposite (Diener, 1980). If the norms of the situations are 'to behave as you wish or as others do' then increased disinhibition of action could result from both increased and decreased self-attention. The treatment of deindividuation, disinhibition and lack of self-awareness as being equivalent therefore begins to look untenable.

Recently, there have been moves to incorporate the variables used in self-awareness research into deindividuation research in a more specific way. One statement (Prentice-Dunn and Rogers, 1982) (see also Chapter 1) proposes that public and private self-attention have differing roles in deindividuation. They state that 'it is only when antecedent variables decrease private self-awareness that the deindividuation process is evoked' (p. 504). One relevant antecedent variable is 'accountability cues'. These influence public self-attention in such a way that lower accountability cues 'decrease concern with social standards and reduce conformity ... [Thus] ... antecedent conditions that lower public self-awareness produce disinhibited actions, but not through deindividuation' (p. 505). Quite simply, if one does not feel accountable for one's actions there is no reason not to do as one wishes. In contrast, 'attentional cues' alter private self-attention: 'A decrement in private self-awareness is the crucial mediator in the deindividuation process [since] the person cannot retrieve standards with which to compare and adjust

his or her behaviour' (p. 505).

It will be recalled that this model was tested in an experiment involving groups (one member being a confederate) in which the members were asked to deliver electric shocks to a 'learner' (as in the Buss aggression paradigm). There were four conditions. Two levels of attentional cues were manipulated by having subjects focus outwards, with loud music in the background (external) or inwards on their thoughts and feelings (internal). Additionally accountability was high (all shocks delivered were being recorded and a meeting with the victim anticipated) or low (no contact or record). There were main effects such that either lower accountability or external attention produced increased aggression. Also of importance was the finding that heightened accountability led to increased feelings of public self-consciousness (but not private) while internal focus of attention increased feelings of private self-consciousness (but not public). It was concluded that 'one category of group aggression results from a group member's active calculations that his or her attacks on another person will not be subject to scrutiny or possible retaliation ... [the other] ... may result from decreased cognitive mediation of behaviour' (p. 512).

There are a number of problems even with this formulation. First, as the Nadler, Goldberg and Jaffe (1982) study showed, lack of self-focus can lead to increased prosocial as well as antisocial behaviour. There is no reason why decreased self-attention should increase aggression other than that modelling (Bandura, 1973) and reactivity to cues of the moment serve as standards. An alternative course of action could be complete indifference and lack of involvement. The other problem is that, yet again, the supposed mediating variables (self-attention/ accountability) were made explicit by instructions to subjects and thus strong demand characteristics could have influenced their responses.

Loss of identity as an explanation for group behaviour

Deindividuation research has concentrated on explaining the phenomenon of crowd violence rather than the processes of crowd and group behaviour. A good example is Haney, Banks and Zimbardo's (1973) prison experiment. This replicated the phenomenon of group mediated aggression amongst subjects who were role playing as guards[1]. The tendency has been to regard disinhibited behaviour and particularly aggression as a part of the processes of immersion in the group rather than merely as one possible outcome. It is partly as a consequence of this emphasis that recent research has been aimed at partialling out factors such as private and public self-awareness in order to account for non-deviant group behaviour.

The loss of identity approach has also received some criticism from researchers asking why individuals seek to enter a group or crowd (Dipboye, 1977; Maslach, 1974). In a rather pointless confusion of terms Maslach makes the case that a process of 'collective individuation' may occur whereby 'one loses oneself in the group and in doing so gains a new self, a new identity rooted in the group' (Maslach, 1974, p. 234). The group is a positively reinforcing entity in such circumstances. Examples might include joining the Ku Klux Klan or the Hells' Angels. Alternatively, Fromkin (1972) and Dipboye (1977) identify one major source of the extremity of crowd behaviour as 'a retaliation against the source of the deindividuation and a reaffirmation of identity rather than a loss of self-control resulting from the freedom of anonymity' (p. 1058). It therefore seems that being in a crowd can have either positive or negative affective consequences but that in any case more extreme behaviour may ensue. An important point which emerges from these debates is that immersion in the crowd does seem to alter self-perceptions and identity, and that there does seem to be motivation

either to confirm the collective identity or to reaffirm individual identity. This is an important departure from the 'loss of identity' explanation of so-called 'disinhibited behaviour'.

There are problems even with these approaches. In particular it is hard to see why, if a person is seeking to re-establish individuality, he or she should do so by excessive demonstration of group affiliation (e.g. by being an extreme demonstrator against the police) rather than by total rejection of group aims. This issue is discussed below. For the moment it is worth following the argument that individual differences may explain why such choices are made.

Individual differences in group behaviour

Greenwald (1982) summarises deindividuation research in the following way:

> 'Deindividuation is sometimes associated with a loss of identity but other times with the acquisition of identity via a distinctive group (of which one is an indistinguishable member); it is sometimes sought but other times avoided; and it is sometimes associated with chaotic, norm violating behaviour but other times with conforming uniform behaviour' (p. 72).

He resolves these contradictions by pointing out that the research has really been examining two forms of behaviour. The first, characterised by a lack of social control, can be called 'deindividuation'. The second, which is 'characterised by a high degree of social organisation', he calls 'sociated'. Greenwald (1982) contends that two kinds of situations are particularly relevant in deindividuation research. 'I-type' situations focus attention on the self and personal standards while 'S-type' situations engage the social system and focus others' attention on to the subject. These situations are considered to be similar to those that induce private and public self-consciousness respectively.

A motivational component is then introduced. In so far as self-esteem is the capacity of the self-system to retain dominance, people with low self-esteem should have self-systems which are predisposed to vacate control in the direction of either deindividuation or sociation. People low in S-type orientations will become deindividuated, whereas people high in S-type will become sociated. Greenwald explicitly states that 'the I-type and S-type orientations correspond approximately to,and may prove to be measurable by Fenigstein, Scheier and Buss' (1975) scales of private and public self-consciousness respectively' (p. 175).

There are two things to note here. One is that this formulation directly contradicts those which propose a simple lack of self-awareness as being characteristic of deindividuation. The second is that this is another characterisation of group behaviour in negative terms. It is only those low in self-esteem who are allegedly susceptible to deindividuation or sociation. They either conform helplessly or totally disengage and behave wildly.

So far deindividuation has been characterised as being undesirable and as resulting from a loss of control in terms of personal identity and a shift into impression management, conformity or sheer abandon. What seems clear is that self-awareness and therefore the self are implicated. At this point it is worth noting the position adopted by self-awareness theorists themselves, since they are rather less confident than deindividuation theorists of the processes governing group action.

Their general view is consistent with Diener's in so far as they think that 'self-focussed attention, if it cannot be escaped, is generally a civilising agent ... the person ... is responsive to those values that society has tried to inculcate' (Wicklund and Frey, 1979, p. 54).

Carver and Scheier describe the effects of deindividuation from a cognitive perspective:

> 'The person whose self-attention is low (e.g. in deindividuating circumstances) does not seem to behave; he simply ceases to regulate at higher levels of abstraction' (Carver and Scheier, 1981a, p. 177).
>
> ... 'a state in which the comparator at the Program or Principle level has ceased to compare perceptual input with the standard that is available to it' (Carver and Scheier, 1981b, p. 126).

They are, however, aware that group behaviour is more complex than is usually allowed for. They argue that 'deindividuation involves decreased awareness of the private self' (Scheier and Carver, 1981, p. 211), but point to the 'inadvisability of equating deindividuation with the absence of attention to the public self' (Carver and Scheier, 1981a, p. 176), since anonymity is insufficient to induce disinhibited behaviour.

Wicklund's (1982) more social view of group influences assumes that 'the group' is equivalent to 'society' and that society has control over the individual member in so far as the person's self-awareness can be maximised. However, he always regards strong internal states and emotions as more potent directives for behaviour than group influence. Therefore, 'if the group sets out to guide the individual's behaviour it should first ensure that the person is not experiencing a strong emotion' (p. 226). It seems that Wicklund's account of deindividuation is based on the idea of 'individuals' harmony with the group' (p. 211; cf. Shibutani, 1961). In Wicklund's view,people exist on a continuum from self-control to group control with strong emotions at one extreme and deindividuation at the other. Deindividuation is viewed as a state where the individual is not the locus of control. Wicklund (1982) states:

> 'To the extent that individuals collect in deindividuated units, thus transforming the unit of analysis from "I" to "we", the potential of each individual member for the discomfort of self-focus is thereby reduced ... [thus] ... lowered control via values and personal standards ... a condition just opposite to self-awareness will arise - that of deindividuation - which entails the relaxing of standards and morals' (p. 226).

A, perhaps unkind, paraphrase of this might be 'to the extent that people are deindividuated they will not be self-conscious'. This is self-evident because deindividuation is defined by lack of self-consciousness! A more important point arises from Wicklund's discussion. How or why does the unit of analysis get transformed from 'I' to 'we', and does this really entail the relaxing of standards?

Within U.S. research the picture is consistent with the model below. Other theories such as social impact theory (Jackson, and Latané, 1981; Latané, in press; Latané, Williams and Harkins, 1979; Williams, Harkins and Latané, 1981) are supportive of the idea that immersion in a group, lack of conspicuousness (e.g. by a small audience) and similar variables do lead to less responsible behaviour. However, recently serious criticisms have been levelled at this approach (Reicher, 1982). The basic criticism is that deindividuation theorists have misconstrued crowd behaviour as being the sum of many individuals' behaviour. Reicher suggests the alternative approach - social identity theory - provides a more appropriate level of analysis.

ENVIRONMENT	STATE	MODE OF REGULATION	BEHAVIOUR
GROUP →	(LACK OF) PRIVATE (AND PUBLIC) SELF-ATTENTION →	SELF-PRESENTATION OR UNREFLECTIVE/AUTOMATIC →	DISINHIBITED

(MOTIVATION TO)
(DIFFERENTIATE SELF FROM GROUP)
(OR)
(EXPRESS 'ID')

Figure 2: The deindividuation/self-awareness model of the psychological consequences of being in a group

A SOCIAL IDENTIFICATION APPROACH

Social identification model of crowd behaviour

Reicher's (1982) approach to crowd behaviour assumes that social factors have 'primacy' over individual ones. He directly challenges individualistic determinism as the ideological root of theories of crowd behaviour. He criticises the work of Le Bon and Zimbardo for its inflexibility and unjustified assumptions. Specifically, he points out that crowd members are often not anonymous and that they are not always aggressive either. He regards the identity versus loss of identity characterisation of crowd behaviour as inadequate.

One alternative, mentioned earlier, is 'Emergent Norm' Theory (Turner and Killian, 1957). This suggests that people in crowds are often searching for norms or cues for behaviour. They therefore locate people who are identifiably different or prominent in the crowd and are led by these individuals into various extreme behaviours. Reicher's criticism of this approach is that it does not explain why crowds are unified in their actions rather than being composed of disparate sub-groups. In fact, this theory has also been criticised by Diener (1980) but not for the same reason. For Diener it is normlessness which characterises the crowd and unself-consciousness which enables normlessness. Hence it is absurd to regard crowd behaviour as norm-regulated, since this implies self-awareness too. Of the two criticisms, Reicher's seems more valid and rejects Diener's assumptions. A recent test of Emergent Norm Theory (Mann,Newton and Innes, 1982) failed to find support for it. Subjects were more aggressive when anonymous than when identifiable even when a norm of leniency had been established by a confederate. This experiment, however, does nothing to support Reicher's explanation of crowd behaviour in terms of social identity.

Reicher's definition of a crowd - 'a set of individuals who share a common social identification of themselves in terms of that crowd' (p. 68) - is the same as Tajfel and Turner's (1979) of a group. Reicher's key assumption is that common self-definition in terms of criterial attributes, which occurs in groups (Turner, 1982), also occurs in crowds. 'The crowd differs only as a matter of degree' (p. 69). In order to assess Reicher's view properly it is necessary to recount Turner's (1982) account of ingroup cohesion, since it is this on which Reicher bases his ideas.

Ingroup cohesion

Turner (1982) argues that variables such as interpersonal attraction, similarity, common fate and physical proximity are often unnecessary for group formation. Rather, he suggests cohesion within a group is often the consequence of group formation. Social identification can lead to social cohesion through intragroup (as opposed to interpersonal) attraction. Following Tajfel, it is argued that people both deduce each other's attributes on the basis of their category memberships and, via induction, work out the criterial aspects of a category from the attributes of exemplary members. These distinguish between groups in terms of those attributes which are criterial for membership. For example, height does not distinguish between French and English people, whereas it may do between Japanese and English people.

According to Turner (1982): 'As group membership becomes salient, perceived intragroup similarity and intragroup liking tend to be enhanced' (p. 29). More importantly, people stereotype themselves in terms of the criterial attributes of their own group - a process which can occur 'rapidly and transitorily as well as relatively slowly and stably' (p. 29). The way that this is done is by what Turner

calls referent informational influence. Essentially social identification with the group leads a person to learn its norms and criterial attributes. When membership is made salient those specific norms are adopted and the person behaves in accordance with those norms which he or she believes apply to all category members. For Turner, the influence of the group on behaviour is not reducible to conformity pressures, modelling or social comparison but is directly related to social identification. He regards this conceptualisation as being of value because 'it suggests a way of accepting that group behaviour has superordinate or suprapersonal properties which cannot be reduced to interpersonal relationships whilst explaining such processes in terms of individual psychological processes' (p. 23).

The crowd as a group

It is clear to see how Turner's model can apply to crowds. Reicher (1982) points out that the homogeneity of crowd behaviour is likely to be a result of their acting in terms of a common social identification, once members have inferred 'criterial attributes of the crowd's social identity from the actions of its members' (p. 70). They do this partly on the basis of the reason for the crowd's existence (to support a football team, object to police actions, demonstrate against the cuts) and more specifically from the particular characteristics of the concrete situation.

The spread of ideas or intentions through a crowd operates via referent informational influence, according to Reicher. He argues:

> 'It is fair to assert that,in the case of an individual in a crowd, group salience is extremely high. Therefore the act of identification with the crowd will lead to an instantaneous assimilation of its criterial attributes ... to the extent that any new idea, emotion or behaviour becomes a criterial attribute of the crowd, it too will be assimilated' (Reicher, 1982, p. 72).

A valuable aspect of this approach is that in one 'crowd' there may be several psychological groups (e.g. at a soccer match) whose criterial attributes differ, and thus whose salience leads to different behaviours. Without this perspective it is impossible to account for the partisan nature of (for example) soccer violence.

Reicher's approach seems to make more sense of much crowd behaviour than does the Deindividuation model. The mass picket at Grunwick, the riots in Toxteth, huge C.N.D. demonstrations and the Greenham Common peace camp cannot be explained other than in terms of a common cause. Other psychological theories of mass behaviour have been so preoccupied with the relative extremities of the actions of individuals that they have not understood the importance of the social context within which those actions take place. On the other hand, there is little hard evidence for the immediate self-stereotyping which Reicher proposes as crucial in crowd behaviour. Nor is it impossible that crowds do form from the amalgamation of individuals who each have their own views and personal identifications in relation to a cause (e.g. the Campaign for Nuclear Disarmament). Given that individuals often make their decisions to enter crowds in a premeditated and personally motivated way, it is open to question whether social identification is always the most important mediator of crowd behaviour. More problematic is that Reicher has defined the crowd in terms of a psychological state (of social identification), has explained behaviour in terms of that state but has also argued that the crowd usually causes that state (social identification comes into play because the crowd makes it salient). Empirical evidence is needed to demonstrate that social identification does occur in crowds. A recent attempt to assess the value of social identity theory in explaining apparently deindividuated behaviour has been made by Reicher (1983).

Reicher's (1983) hypothesis is that, quite often, so-called deindividuation is merely depersonalisation. That is, immersion in the group increases the salience of social identity and decreases that of personal identity, rather than leaving the person without identity. He recognises the possibility of absolute deindividuation, however, thus preserving the distinction referred to earlier between a mere lack of private self-regulation and regulation with reference to the group. For Reicher, though, the latter is not merely conformity; it is 'referent informational influence' based on social identification[3]. Specifically:

> 'Deindividuation of individuals qua individuals will decrease the salience of social identity and will consequently decrease adherence to group norms ... [whereas] ... deindividuation of individuals in a group will increase the salience of social identity and hence increase adherence to group norms' (Reicher, 1983, p. 6).

To test this, Reicher had Science and Social Science students express support or rejection for vivisection. They were led to believe that the Social Science norm was anti- and the Science norm was pro-vivisection. The subjects were either all randomly mixed together or were in specifically identified Science and Social Science groups (Group Salience manipulation). Half of the subjects were in deindividuated conditions, wearing overalls and hoods, while the other half were in normal attire, and thus were individuated. Pro-vivisection attitudes of Science students were stronger in the High than in the Low Group Salience condition, but only among deindividuated subjects. Among the Social Scientists, anti-vivisection attitudes were stronger in High Group Salience conditions, irrespective of the deindividuation conditions.

One clear implication of these findings, for Reicher, was that, 'far from becoming de-regulated, behaviour comes under the control of

norms relating to the appropriate social identity' (p. 13). Although deindividuation can inhibit social identity, 'deindividuation, in whatever sense it is used, acts by manipulating the salience of social identity ... [and] ... to the extent that crowd members are made anonymous this anonymity will increase the salience of social identity and hence increase the regulation of behaviour' (p. 16).

Unfortunately, Reicher's results do not permit such conclusions, nor does that experiment adequately test his hypotheses. Diener (1980) has pointed out the individuating effects of wearing hoods and baggy overalls. In so far as Reicher's (1983) deindividuation conditions used these manipulations, we cannot be sure what aspects of identity they made salient. Self-report measures, such as those employed in Diener's experiments (e.g. Diener et al., 1980) might have usefully illuminated this problem. Second, increasing conformity to a group is often an effect of self-awareness, but not necessarily of identification with that group. This point will be elaborated later on (see also Chapter 1 above). It is also possible that subjects in Reicher's study were just following cues from the group, rather than 'regulating' in terms of membership of that group[2]. The ambiguities and difficulties raised by this discussion are essentially the result of a conflict between conceptual frameworks. In the following section a resolution to this conflict is proposed.

THREE PERSPECTIVES: A POSSIBLE RESOLUTION

We are presented, then, with three rather different accounts of group behaviour. Deindividuation theorists posit a loss of identity; social identity theorists posit a switch of identity. The third account is that of reference group theory. In this alternative the group is used as a reference point for defining one's personal attitudes.

According to reference group theory, there is no need for immersion in a group or identification with that group for group related behaviour to occur. In fact, there is little reason to regard the three perspectives as being incompatible. An examination of the research procedures adopted by proponents of the different approaches shows why they cannot agree about (for example) crowd behaviour. Experiments on deindividuation are based on a model of intragroup processes. It is therefore unnecessary to invoke a theory of intergroup behaviour to explain the results. If anonymous group members are aggressing towards a victim, the notion of categorical differentiation is simply irrelevant to the situation. The obverse of this is that if social groups are in conflict it is inappropriate to seek explanations for their actions purely at the intragroup level.

Reicher's account of the crowd suffers from over generalising from the group to the crowd. Many crowds are mere conglomerations of individuals (e.g. at a folk festival, a fair, or at the sea-side) who may have a common interest but do not have a common outgroup or share a social identification. At such events disinhibited behaviour is not unusual to behold. It seems likely that,in such crowds, Diener's description of individuals as lacking in self-consciousness may be very accurate. Such crowds should be distinguished from those whose presence results from a collective and unified aim and who probably do behave as a social group. In the latter case Reicher's analysis does seem more relevant.

In characterising group behaviour as, at one extreme, the loss of personal identity and,at the other,the maximisation of social identity, the middle ground has been left uncovered. In this middle ground it seems probable that reference group behaviour is common. That is, individuals define their personal identity by means of positive

and negative comparisons with their stereotyped perceptions of the attitudes and attributes of various groups. For example, a person can define him or herself as 'not a Conservative', and as 'not a member of the Labour Party', and might say that his or her 'Left wing views differ from those of the Labour Party in the following ways ...'. The rest of this chapter will be concerned with showing how these three aspects of group related behaviour (deindividuated, reference group and social identification) can be integrated and seen as operating via a general system of self-regulation.

Conceptual framework

Self-awareness theorists have conceptualised the self as having distinct affective and cognitive components (e.g. Scheier, Fenigstein and Buss, 1974; Scheier, 1976; Scheier and Carver, 1977). These may compete for attention and influence behaviour to different degrees. This view, while not unreasonable, ignores to some extent the fact that affective and cognitive states are more usually congruent than not. As discussed in Chapter 1, a situation that gives rise to anger is likely also to denote an aggressive standard for behaviour.

The second distinction drawn by self-awareness theorists is that between private and public aspects of self. This is problematic since the theory is based on sociological premises about the construction of the self-concept (Mead, 1934; Shibutani, 1961). Thus, even those 'standards of correctness' which are privately held are usually related to the standards adopted by significant others. Furthermore, those behaviours based on self-presentational concerns also may have private significance. The degree to which a person presents him or herself as supporting a group may be directly related to the extent to which he or she values that group. Thus, publicly observable and private aspects of

the self are not always separable or independent because of the existence of private feelings and evaluations of public behaviour.

It is possible that a social-personal distinction might be as useful as the private/public one, when describing aspects of the self. Even so, personal and social domains may not always be phenomenologically distinguishable. For example, a person might feel personal anguish over being socially rejected. However, the idea here is to use the distinction to describe the way the self is orientated to a given situation or to information, rather than the content of that situation (or indeed of the self). What is important is not whether the content of self-evaluations is social or personal, but whether that content is evaluated in terms of its social or personal meaning. For example, I may evaluate my hairstyle in terms of its social appropriateness or I may evaluate it in comparison with my past and (fantasised) future hairstyles. Similarly, at a dinner party, the meaning of a stomach ache is dependent on whether one is concerned primarily with its painfulness or primarily how one should deal with it. The advantage of this scheme is that it allows supposedly private attitudes and emotions to have social meaning. The self-awareness theory assumption that private aspects of self are necessarily asocial is untenable, within the present framework.

In order to make sense of the social/personal distinction it is probably necessary to add in a historical dimension. That is, people do not just regulate their behaviour in terms of who or what they are but also in terms of their past roles and intended actions. Self-attention theorists (particularly Wicklund, 1980) acknowledge the importance of this dimension but do not really distinguish between attention to present and past aspects of self. The past is usually thought of as providing a standard but this depends on the novelty of

the situation. Certainly it could be argued that intergroup behaviour makes more sense if it isconstrued as part of an historical process (Marx, 1963). To the extent that the self is implicated in such behaviour the past, present and anticipated implications of group membership for the self may well provide standards for behaviour (Rabbie and DeBrey, 1971). An interesting possibility arising from this framework is that aspects of the self which have been initially defined purely in social terms - such as one's occupational categories - may later be defined as strictly personal in so far as they serve to distinguish the self from other individuals. To have been a typist in a typing pool is not a personal aspect of self until it is a part of one's self-concept,which is different from those in one's social environment. This conceptualisation of the self is different from that offered by Tajfel and Turner (1979) and Brown and Turner (1981) in that the present framework allows that social identities can become 'personal' after a period of time. In some ways this idea is compatible with the view of Stephenson (1981) that personal and social aspects (or rather interpersonal and interparty aspects) are orthogonal rather than on a simple unidimensional continuum. While other advantages of this framework will be mentioned later, it is more important now to delineate the relationship between social identity and self-awareness. The basic argument is that self-awareness can increase the impact of social identity on behaviour.

Integration of theories

The Carver and Scheier (1981a) model of self-awareness makes it quite clear that adopting a reference value for behaviour requires self-attention. To the extent that one's membership of a category or group provides a reference value, it too will influence and guide behaviour if

it is attended to. All of the research on self-attention to date has induced or measured self-focus purely in relation to personal or interpersonal considerations. The general finding is that private self-attention increases resistance to normative group pressure while public self-attention encourages conformity. In all cases, however, subjects are acting as individuals rather than as group members. There is little explicit guidance and no empirical evidence as to what the impact of private or public self-attention would be on social identity.

The obvious answer would seem to be that, since public self-attention is equated with an increasing social orientation (Fenigstein, 1979), it should be relevant in mediating social identity (cf. Cheek and Briggs, 1982). However, in various ways it is likely that private self-focus is implicated more strongly in the mediation of social identity. The reasoning behind this assertion is that it is private self-focus which is said to increase regulation in terms of organisational and perceptual schema. A social categorisation is one such schema (Tajfel, 1980). Also, since social identity is a part of the self-concept (Turner, 1982), it follows that it is regulated by focus on self-definitional aspects of self. This type of self-focus is identified by Scheier and Carver (1981) as being private rather than public. The third reason why private self-focus should mediate social identity is that the motivational component of social identity is held to be the desire for positive self-esteem. Self-esteem is an entity which has been shown to be particularly influential on behaviour when subjects are privately self-focused (Brockner, 1979a, 1979b; Carver, Blaney and Scheier, 1979a, 1979b; Carver and Scheier, 1982a).

This position is directly contradictory to the accepted line on self-regulation in groups. The deindividuation theorists mentioned

earlier all agree that group behaviour is characterised by the absence of private self-regulation. According to them, any increase in private self-awareness should inhibit group-based regulation of behaviour. There has been one (foot) note of dissension from this line. Carver and Scheier (1981b) are somewhat equivocal. While generally agreeing that disinhibited behaviour in groups results from the cessation of control at the Program or Principle levels, they hint at the idea of a superordinate 'Systems Concept', which may come into play. This means that, although private self-attention may encourage behaviour that obeys the principle of 'maintaining a positive self-image', this can have different implications depending on whether the system concept is that of an individual (encouraging self-consistency and resistance to pressure) or as a category member (encouraging positive differentiation between one's own and other categories). Scheier and Carver (1981) refer to this latter condition as 'a sort of "group regulation" which might be construed as superordinate to normal self-regulation' (p. 135).

The role of public self-focus appears to be more simply connected with the immediate regulation of overt behaviour. Public self-attention seems to increase adherence to norms of interpersonal behaviour and bow to consensus or conformity pressures rather than to behaviour based on the self-concept. As mentioned above, there has been some discussion over the importance of public self-attention to deindividuated behaviour. A reasonable conclusion is that public self-regulation comes into play where the situation is ambiguous and individuals are seeking norms or cues as to what behaviour is appropriate. Such a situation is present when one is immersed among a group of anonymous and sometimes unidentifiable others. The suggestion here is that, in an undefined group of undifferentiated

individuals, it is likely that people will regulate their behaviour with regard to interpersonal norms and cues. On the other hand, where the group is an identifiable entity in its own right (e.g. given a group name or label, or defined in relation to another group), then focus on social identity and self-stereotyping in terms of criterial attributes of the group should occur. It is not the anonymity/identifiability of the individuals which is important but of the group as a whole. In the former case public, and in the latter private, self-focus would seem more influential. This line of reasoning is supported by the results of studies such as Reicher's (1983), discussed earlier.

To summarise the position so far, it is argued that,to the extent that social identity is a part of the self-concept,its influence on behaviour will be mediated by a system of self-regulation. Despite the fact that the empirical and theoretical bases of self-awareness theory are individualistic, there are good reasons why social identity should be one of the systems by which behaviour is organised. Therefore, in contrast to recent theorising, group behaviour may well demand self-regulation. Specifically, private rather than public self-attention may be the crucial factor.

Unresolved issues

Perhaps the most serious issue is how to use the private/public and the personal/social distinctions. It is possible to see 'public' and 'private' as being shorthand for 'self-presentational' and 'self-definitional' regulation, respectively. Given that this distinction does not contradict or invalidate a social/personal one, there is no reason to abandon either. Indeed, information can be regarded as being meaningful in social and/or personal terms, and self-regulation

can be self-definitional or self-presentational depending on which of these strategies best preserves the meaningful aspect of self. There are, moreover, several good reasons for retaining the private/public distinction. It is a part of the self-awareness paradigm. There is plenty of evidence that it is useful in predicting the influence of self-attention. Finally, it seems to be a robust, reliable and valid characterisation of self-attention.

A second problem is whether 'awareness' is a necessary part of self-regulation (cf. Hull and Levy, 1979; Wicklund and Hormuth, 1981). It may be that the amount of attention which needs to be devoted to a social identity for it to regulate behaviour is dependent on the extent to which that identity is integrated into the 'I' (Mead, 1934) part of the self. For example, although men and women act in terms of their sex much of the time (e.g. men playing cricket while their female partners make tea and sandwiches), it is unlikely that they see this as a function of their group membership. Rather, they are aware of their personal desire to play cricket or prepare provisions. In self-regulation terms, they attend to the principle or program level of self, although the system concept which has been engaged is not of self as an individual but (the social identity) of self as a cricketer or tea lady.

While attention to a social identification may not always be necessary, it is likely that where one's category membership is highly distinctive or novel one will attend to it. Thus, sudden confrontation with rival football supporters may initiate the processes of referent informational influence posited by Reicher (1982) and Turner (1982). Clearly this requires reflection on what the criterial attributes and behaviours of one's category are.

The general argument, then, is that the more deeply internalised is

a social identification the less is it necessary to attend to it as a part of self-regulation. Sex identity is a good example. It is so pervasive that it provides an overall schema which determines other parts of the self. It affects both interpersonal (aiming to attract an individual of the opposite sex) and intergroup (doing down the opposite sex) aspects of behaviour. It also determines personal choices about behaviour (to do needlework or woodwork at school). It is improbable that sex identity is attended to in all of these circumstances,but it does provide a framework for behaviour.

In contrast, subjects in an intergroup experiment, particularly of the minimal group paradigm (Tajfel et al., 1971), would probably have to attend to their category membership because there would be no established or automatic implications for behaviour. Hence, for a transitory social identification to be influential, attention must be drawn towards it. In fact, in minimal group experiments there is little else to attend to. A reasonable test of this hypothesis might be to set up competing attentional demands and see what impact they have on intergroup differentiation. Research on the effects of criss-crossed categorisations (Brown and Turner, 1981; Deschamps and Doise, 1978) show that this reduces ingroup biases. It is still unclear whether such results are due to a 'cancelling out' effect of different identities or whether they are more directly attributable to attentional demands of the task making program and principle levels of regulation superordinate - preventing attention to the social identifications.

RESEARCH QUESTIONS

The preceding discussion, and the reviews of self-awareness theory and social identity theory presented in Chapters 1 and 2,

raise a number of issues. These include the question of what level of self-regulation groups activate, and the extent to which such regulation is mediated by focus of attention. It is also necessary to explore the motivational bases of group-regulated behaviour. For example, impulse (as inferred by deindividuation theorists), self-presentation (as inferred by self-awareness theorists) and identification (inferred by social identity theorists) have each been accorded importance in the explanation of the behaviour of group members.

Theoretical issues

The first question must simply be: does self-awareness have any impact on intergroup behaviour? If the answer is yes, then the evidence available at present suggests that the impact would be to increase self-presentational affiliation to the ingroup and rejection of the outgroup. Specifically, focus on the public self should encourage reference group behaviour. If that is the only impact of self-awareness, then any attitude or expression associated with the ingroup will be adopted more willingly than will those associated with an outgroup. Positively differentiating between groups may be less important than appearing to agree with the views of ingroupers.

However, if we pursue the line that groups act not only as a social frame of reference, but also as a part of the self-concept, other possibilities present themselves.

To the extent that a social categorisation may embody a cognitive motivational bias to perceive one's own category favourably, and to exaggerate intercategory differences, increased awareness of such a categorisation should also increase those biases. There is good reason to suggest that self-awareness will produce a clearer conception of oneself as a category member and that self-focused attention should

therefore elevate intergroup differentiation. Similarly, to the extent that self-focused attention alerts people to their covert and motivational states, it should also increase the potential for such states to impinge on intergroup behaviour.

Another important consideration is the influence of identification with a group on intergroup behaviour. Again, since self-focused attention can bring a person to adhere to prior commitments, it seems likely that identification with a group will have increasing weight as the person becomes self-aware. Similarly, if self-esteem as a group member is at stake, in intergroup contexts, it seems plausible that moves to maintain or enhance that esteem will depend on how aware of it the individual is. Much of the early self-awareness research explicitly stressed the motivational impact of the real/ideal self discrepancy which is highlighted during self-focused attention.

These proposals must be qualified in the light of (possibly) self-preservational pressures which may also arise in intergroup contexts. It is not uncommon, for example, for intergroup behaviour to be enacted in the presence of others. Presumably, the composition of such an audience (for example, the presence of ingroup and outgroup members) may demand a variety of ways of presenting oneself in the light of one's group membership. Some audiences may encourage a masking or re-casting of the self. Others may allow full expression of a self-image. Furthermore, individuals may vary in the extent to which they regard the way they express themselves and the way they conceive of themselves. Those who are dispositionally high in public self-consciousness may be attuned to self-presentational possibilities, and those who are high in private self-consciousness may be attuned to the self-images which constitute their self-definition at various times. It may be the case that, whether by situational or dispositional influence,

regarding oneself in these different ways evokes different standards and schemata for behaviour. The impact of generic social norms (for example, of equity) and of personal motivations (such as dissonance, reactance and self-esteem) on intergroup behaviour may therefore depend on the way in which attention is focused on the self.

Methodological issues

The next chapter examines the Self-Consciousness Scale (Fenigstein, Scheier and Buss, 1975) in some detail. If so much is contingent on the empirical reality of the private/public distinction then it seems appropriate to explore its empirical basis. The two main subscales should be reproducible through factor analysis of the entire scale. In addition, it is important to establish the relationship between private and public self-consciousness and other variables which might be theoretically related to those. If, for example, one form of self-consciousness is correlated with self-esteem or with Machiavellianism, while the other is not, then their effects on intergroup behaviour could be expected to differ. On the other hand, if the private and public scales correlate highly with each other, then it is unlikely that the effects of the self-consciousness they measure would differ. It is also important to be able to assess the effects of different experimental manipulations of self-focus. It should be possible to cross-validate the Self-Consciousness Scale and the manipulations by showing that their effects converge or diverge where appropriate.

Another factor which may bear on the results of enquiries into the theoretical issues raised above is the nature of the groups involved. It may be that the effects of self-focused attention depend in part on how established or artificial is a subject's social group. Pre-existing social relations between groups, and expectations concerning intergroup

behaviour, may provide different yardsticks for self-evaluation than would exist in the case of experimentally created groups. In particular, it may be important to distinguish between a salient social categorisation of self and an already meaningful identification with a social group, as will be argued in later chapters.

The general aim of the empirical part of this thesis is to bring together self-awareness and social identity theories, thereby challenging the notion that self-awareness and immersion in the group are mutually exclusive processes. It is also intended to distinguish between the roles of self-awareness when a group is used merely as a reference point for self-evaluation and when self is <u>defined</u> as a group member. These two forms of association with groups are not mutually exclusive, but they may have discernibly distinct effects on behaviour. The pursuit of these goals may bring a more social perspective to research on self-awareness at the same time as delving more deeply into the psychological parameters of intergroup behaviour.

NOTES

1. Curiously, those acting as prisoners did not become disinhibited, but changed from being acquiescent to demonstrating a degree of solidarity against the guards. Thus, both guards and prisoners actually developed quite clear identities, defined purely in intergroup terms.

2. In any case extending Reicher's argument to explain crowd behaviour may be unjustified, given Mann, Newton and Innes' (1982) findings that group normative cues can be weaker than deindividuating ones in their impact in some situations.

3. Turner (1982) uses this term to refer to 'a distinct form of social influence produced by the cognitive processes associated with self-stereotyping' (p. 31). It differs from normative influence in that actual normative group pressure and accountability to actual group members are not required. It differs from informational influence in that the person is only susceptible to information concerning the criterial norms of one's social category. Referent informational influence occurs when one's self-definition as a group member is salient.

CHAPTER 4

THE MEASUREMENT OF DISPOSITIONAL SELF-CONSCIOUSNESS

This chapter describes the Self-Consciousness Scale (SCS) (Fenigstein, Scheier and Buss, 1975), its development, validation and assessment in the U.S.A. and West Germany. An investigation of the nature and properties of the scale on several samples of British subjects will be presented, and an overall review of the adequacy of the scale will follow. The reasons for devoting an entire chapter to this subject are as follows. In three of the four sets of studies presented in this thesis the design and analyses incorporate self-consciousness measures in order to test hypotheses. Second, the Self-Consciousness Scale provides convergent validity with manipulations of self-awareness and thus can be used to confirm or add weight to empirical findings based on experimental manipulations. Third, the scales have become an established part of self-awareness research; it is therefore entirely appropriate to subject them to critical scrutiny in the same way as would be done with other research tools. Finally, it is intrinsically interesting to see how dimensions of self-consciousness are represented in different cultures and among different subject populations. Exploration of these issues may enhance our general understanding of the nature of self-attention.

THE SELF-CONSCIOUSNESS SCALE (SCS)

The SCS was developed by Fenigstein, Scheier and Buss (1975). Initially they made up 38 items devised to relate to the following seven areas: (i) preoccupation with past, present and future behaviour; (ii) sensitivity to inner feelings; (iii) recognition of one's positive and negative attributes; (iv) introspective behaviour; (v) a tendency

to picture, or imagine, oneself; (vi) awareness of one's physical appearance and presentation; and (vii) concern over appraisal by others. A Varimax factor analysis of the responses of 210 subjects revealed that the first three factors accounted for 43% of the variance. These factors were labelled 'private', 'public' and 'social anxiety'. These items were then used as a 'scale' and were presented to 9 different samples of subjects (amounting to 1,821 subjects in all). For all nine samples the same three factors emerged. The 23 significantly loading items were then presented to 179 male and 253 female subjects. Three factors were retained for final rotation. The factors and item factor loadings were consistent and similar for both sexes. Finally, the 23 items comprising the 'scale' were presented to another 152 subjects. The same three factors emerged. The final version of the scale is presented in Table 4.1 below. Subjects are asked to rate on a 5-point Lickert scale the extent to which each item is 'extremely uncharacteristic' (1) to 'extremely characteristic' (5) of themselves. (An example of the scale as subjects see it is presented in Appendix A1).

Table 4.1

Items comprising each Self-Consciousness Subscale
(Fenigstein et al., 1975)

Private Self-Consciousness

Item number	
1	I'm always trying to figure myself out
3(-)	Generally I'm not very aware of myself
5	I reflect about myself a lot
7	I'm often the subject of my own fantasies
9(-)	I never scrutinise myself
13	I'm generally attentive to my inner feelings
15	I'm constantly examining my motives
18	I sometimes have the feeling that I'm off somewhere watching myself
20	I'm alert to changes in my mood
22	I'm aware of the way my mind works when I work through a problem.

Public Self-Consciousness

Item number	
2	I'm concerned about my style of doing things
6	I'm concerned about the way I present myself
11	I'm self-conscious about the way I look
14	I usually worry about making a good impression
17	One of the last things I do before I leave my house is to look in the mirror
19	I'm concerned about what other people think of me
21	I'm usually aware of my appearance.

Social Anxiety

Item number	
4	It takes me time to overcome my shyness in new situations
8	I have trouble working when someone is watching me
10	I get embarrassed very easily
12(-)	I don't find it hard to talk to strangers
16	I feel anxious when I speak in front of a group
23	Large groups make me nervous.

Fenigstein et al. (1975) used the term 'self-consciousness' to distinguish the dispositional tendency to engage in self-attention from situationally induced 'self-awareness'[1]. Fenigstein et al. defined private self-consciousness as 'attending to one's inner thoughts and feelings'; public self-consciousness as 'a general awareness of the self as a social object that has an effect on others'; and social anxiety as 'discomfort in the presence of others' (p. 522) - a reaction to self-focused attention.

Following this initial work, Carver and Glass (1976) sought to demonstrate the discriminant validity of the scales (Campbell and Fiske, 1959). They decided that seven variables, in particular, might be invoked as being more parsimonious than either private or public self-consciousness in explaining so-called effects of these factors in earlier studies (e.g. Fenigstein, 1979). They measured intelligence, need for achievement, test anxiety, activity level, sociability, emotionality and impulsivity using a variety of standard scales. Scores on these were then correlated with scores on the SCS of 105 subjects. Public self-consciousness correlated weakly with sociability ($r = .22$) and emotionality ($r = .20$). Social anxiety correlated negatively with sociability ($r = -.46$), with activity level ($r = -.27$) and with IQ ($r = -.21$). This last correlation was not anticipated. Carver and Glass (1976) concluded that the Private and Public subscales 'may be employed as selection instruments for future research with little fear of their being confounded with the variables tested here' (p. 172).

The other major validation study which inspected correlations was conducted jointly using six large samples of subjects (Turner, Scheier, Carver and Ickes, 1978). The three SCS subscales were correlated with scores on the following others: Guilford-Zimmerman Thoughtfulness;

Paivio Imagery; Marlowe-Crowne Social Desirability; Self-Monitoring (in 4 samples); Gergen Self-Esteem; Bem Sex Role Inventory, Masculinity and Femininity; Emotionality; Sociability, and Test Anxiety. The total number of subjects was 1,395 and the average sample size was 233. In this study the authors discussed both the discriminant and the construct validity of the SCS. They found significant correlations between private self-consciousness and thoughtfulness ($r = .48$) and imagery ($r = .30$) providing 'support from the construct validity of the Private Self-Consciousness subscale' (p. 286). Those subjects who report being privately self-conscious also report being reflective and philosophically inclined. With respect to the significant ($p < .01$) correlations between public self-consciousness and self-monitoring ($r = .24$) the authors argued that 'these are still discriminable constructs with minimal shared variance' (p. 288). Interestingly, social desirability was not significantly correlated with any of the subscales. Self-esteem was significantly negatively correlated with both private and public self-consciousness ($rs = -.26$) and with social anxiety ($r = -.35$), as might be expected[2]. Social anxiety correlated significantly with every scale apart from imagery, thoughtfulness and social desirability. It would therefore seem sensible to doubt the discriminant validity of the Social Anxiety subscale.

Wicklund and Gollwitzer (1983, in submission) have pointed out a problem with these correlational studies. As discriminant validation increases so construct validation decreases (and vice versa). That is, if private self-consciousness correlates at $r = .48$ with thoughtfulness then it lacks discriminant validity - although Turner et al. (1978) claim that the correlation is 'not so large as to undermine the distinctiveness of the subscale' (p. 288). The danger is that this

argument could be applied to almost any variable that promoted the construct validity of the scale, though Wicklund and Gollwitzer (1983) appear justified in their claim that the initial validation of the SCS was rather unsatisfactory.

Further validation, particularly for the Private scale, was provided by Carver and Scheier (1978), who found that high scorers made more self-focused sentence completions on Exner's (1973) measure of egocentricity. Also Turner (R.G., 1978a, 1980) has found that people high in private self-consciousness tend to use more and remember more trait terms in self-description than do lows.

Limitations of the scale

One problem with self-consciousness research is that it has almost invariably been restricted to undergraduate subjects. Because of this it is impossible to tell whether the SCS subscales are measuring enduring personality traits or whether they merely reflect short term preoccupations and habits. If the scales reflect enduring dispositions we should expect that their structure would be reproducible in subject populations of different ages. If, on the other hand, these scales merely reflect situationally induced habits of self-attention (just as 'studying' could be a factor in a student's life, but would not represent a trait of personality), we should expect considerable differences between age groups.

The second, related, problem is that the scales may be culture specific. Self-evaluation may take different forms in cultures with different values. A culture which prides itself in allowing individual freedom may generate a self-preoccupied 'private' self-focus factor in its members. It is possible that cultures with more collective values would not produce such a clear 'private' factor. This issue was

addressed by Heinemann (1979, 1983), who produced and assessed a German translation of the SCS. Heinemann's data will be discussed more fully below.

The third issue is whether there are sex differences in self-consciousness. In fact, McDonald (1980) has found that females are more attentive to such things as clothing and hairstyle than males are. Thus, although males' and females' degree of self-consciousness does not differ (Turner et al., 1978), it seems that it differs in terms of content. This area has received scant attention so far. Detailed analyses of sex differences on responses to individual items on the SCS may be illuminating.

In addition to these issues are two empirical questions which require further investigation. The first is that the validation studies described above did not obtain correlations between the SCS subscales and extroversion/introversion or stability/neuroticism. Both public self-attention and social anxiety involve a concern over social behaviour; private self-attention involves a rather asocial orientation; and social anxiety also involves tension and feeling stressed. There is therefore good reason to suppose that extraversion and neuroticism may correlate highly with the SCS subscales. Furthermore, the relationship between dispositional self-evaluation as measured by the SCS and subjects' level of self-esteem requires further investigation. This is particularly true with regard to this thesis since self-esteem is thought to be an important motivational factor in the determination of intergroup behaviour.

Of equal importance is the evaluation of the distinction between the SCS subscales. Of 18 studies from which the correlation coefficients between the Public and Private Scales were published, only 7 also published Public-Social Anxiety correlations and only 5 published

Private-Social Anxiety correlations (see Table 4.2 below). These correlations show a fairly wide variation, particularly those between Public and Private. As Wicklund and Gollwitzer have also pointed out, the existence of correlations of r = .61 and r = .56 would seem to undermine the discriminant validity of the Public and Private scales, although correlations of r = .17 and r = .21 allow greater confidence. Although the correlation between private and public tends to be about r = .30, the variation is sufficiently large to cause some concern. The evidence here suggests that correlations between subscales should always be provided in order to facilitate the accurate interpretation of results based on SCS median splits. Unfortunately, the majority of studies using the SCS do not report these correlations.

Table 4.2

Summary of intercorrelations found between subscales of Fenigstein, Scheier and Buss's (1975) Self-Consciousness Scale, derived from all available published sources

Study		(n)	Private-Public	Private-Social Anxiety	Public-Social Anxiety
† Bernstein	(1982)	-	.61		
Buss & Scheier	(1976)	49	.23*		
Carver & Glass	(1976)	105	.33	-.05*	-.02*
Carver & Humphries	(1981)	50	.42		
Carver & Scheier	(1980)	60	.27		
Cheek & Briggs	(1982)	214	.39		
Fenigstein	(1979)	40	.17*		
Fenigstein et al.	(1975a)	152	.26	-.06*	.20
	(1975b)	452	.23	.11	.21
Froming & Carver	(1981)	54	.21		
Heinemann	(1979)	317	.39		.29
† Hoover et al.	(1982)		.42		
Scheier	(1976)	91	.34		
Scheier et al.	(1978)	152	.27		
R.G. Turner	(1977)	142	.37		
R.G. Turner	(1978a)	64	.35	.12*	.29
R.G. Turner	(1980)	62	.56		
R.G. Turner et al.	(1978)	1,395	.31	.14	.21

All significant at $p < .05$ with the exception of those marked with an *, which are non-significant ($p > .05$) (calculated from Chambers, 1958, p. 157, Appendix B).

† from Wicklund & Gollwitzer (in submission).

Beyond assessing the validity of the SCS, its reliability remains rather under-investigated. The only test-retest correlations for the scales were those from the original Fenigstein et al. (1975) study (these were r = .79, r = .84 and r = .73 [n = 152] for Private, Public and Social Anxiety subscales, respectively). Thus, test-retest reliability requires further assessment.

Reliability can also be assessed in other ways. A commonly adopted method is to calculate Cronbach's alpha coefficient of internal reliability - essentially an index of the intercorrelation among items in a scale. In fact, only one study has incorporated alpha coefficients for the SCS subscales (Turner, R.G., 1980). The alphas were α = .66, α = .76, α = 80 for the Private, Public and Social Anxiety scales, respectively. This evidence points to a weakness in the internal reliability of the Private subscale. It is possible that the moderate reliability of that scale either reflects considerable error variance or that the scale is tapping more than one dimension. (It should be noted that the former explanation is concordant with the larger number of items in the Private subscale than in the other subscales.) Internal scale reliability clearly requires further attention.

Another useful method of assessing reliability is via factor analysis. It will be recalled that the original factor analytic study of the SCS (Fenigstein et al., 1975) retained only three factors for rotation. If the scales are reliable these three factors should be readily reproduced using any sample of subjects. A check on this can be made using confirmatory factor analysis (Child, 1970). For the SCS responses of any given sample of subjects three factors can be produced after rotation. It is then possible to examine the factor loadings of each item and see the extent to which the 3 factors comprise the items predicted on the basis of their belonging to one of the 3 SCS subscales.

In other words, this procedure is a check on the reliability of the difference between internal structures of the subscales.

Finally, the more usual exploratory factor analysis should merely reflect the confirmatory one. However, in exploratory factor analysis the computer is allowed to rotate all factors with an eigenvalue > 1. If any of the SCS subscales have more than one underlying dimension these should be revealed using exploratory factor analysis. Of all published studies of the SCS following the original Fenigstein et al. (1975) work, only one (Heinemann, 1979) has published a confirmatory factor analysis and none has published exploratory factor analyses. Clearly, it would be valuable to conduct such analyses before using the SCS with confidence[3].

The remainder of this chapter describes the administration of the SCS to a number of samples of undergraduates, as well as two attempts to use a modified SCS with children. The responses to these scales were examined by factor analysis, correlational analyses, reliability coefficients, t-tests for sex differences and also by comparison with the studies conducted by Heinemann (1983).

SUBJECT SAMPLES[4] AND ADMINISTRATION OF SCALES

Undergraduate students (age 18+)

Five separate samples of undergraduate students were asked to complete the SCS. The first of these (UKC 1980) responded to a 4-point format rather than the usual 5-point format of the standard scale[5]. The remaining four samples all completed the standard version of the SCS (see Appendix A5). Two of the samples (UKC 1983 and UKC SURVEY 1983) filled in the SCS as a part of a larger study. The subjects in UKC SURVEY 1983 also completed the Eysenck Personality Inventory (Form B), which measures extroversion/introversion and neuroticism/stability; they also completed Rosenberg's (1965) Self-Esteem Scale. The EPI is

responded to in a binary (yes/no) format, and yields one total score for extroversion and another for neuroticism. The RSES is a Guttman scale yielding a single score based on responses to ten items on 4-point scales.

All samples with the prefix 'UKC' were first year undergraduates at the University of Kent. 'MANCH 1980' is a sample of first year undergraduates in psychology at the University of Manchester. The sample sizes and sex compositions are given in Table 4.3 below:

Table 4.3

Number of subjects in each undergraduate sample to whom the SCS was administered

Sample	Males	Females	Total
UKC 1980	31	56	67
UKC 1981	29	42	71
MANCH 1980	22	51	77
UKC 1983	25	43	68
UKC SURVEY 1983	114	49*	189*
TOTAL	231	221	478*

* 26 subjects' sex was uncoded.

Sixth form students (age 16-17)

Experiments were conducted using sixth form students at two schools in Kent. The first (named 'BOYCOLLEGE' in this thesis) was an all-male sixth form. The 42 subjects at BOYCOLLEGE completed the standard SCS prior to participating in the experiment.

The second school (named 'MIXCOLLEGE' in this thesis) was mixed sex. The SCS was administered twice. In the first session (MIXCOLLEGE A) 99 males and 35 females completed the SCS, the EPI and the RSES prior to completing some pretest materials for an experiment (see Chapter 8). In the second session (MIXCOLLEGE B),several weeks later (retest), 94

males and 30 females completed the SCS. 118 subjects completed the SCS in both sessions, of which 89 were male and 29 were female.

Children (age <14)

One experiment was conducted in a junior school (see Chapter 6). It involved 33 male and 30 female children in their final year (ages 10-11). A set of 12 items was selected and re-worded from the SCS. Private and Public self-consciousness subscales subjects were asked to show how strongly they agreed (1) or disagreed (7) with each statement by circling a number (see Appendix A2). This sample is called 'MINIMAL GROUP'.

In another experiment, conducted with Rupert Brown (Brown and Abrams, 1982; see also Chapter 7), another modified version of the SCS was administered on two occasions. All subjects were aged 12-13. In the pre-test 82 males and 100 females completed the scale. In the re-test 37 males and 43 females from the pre-test completed the scale again. This scale comprised 15 items based on the three SCS subscales and also includes 3 items based on the Pettigrew (1958) conformity scale[6]. Subjects were asked to rate the strength of their agreement with each item by placing a cross on a line labelled 'strongly agree' at one end and 'strongly disagree' at the other. This line was later scored as a 7-point scale (see Appendix A3). The pretest sample is called 'SIMILARITY A' and the retest sample is 'SIMILARITY B'.

The versions of scales administered to children cannot be regarded as equivalent to those given to sixth formers or adults. No previous reliability or validation work has been done on the children's scales. Therefore these were used in a more exploratory way, as will become clear[7].

Summary

478 first year undergraduates, 176 sixth formers, 63 eleven year olds and 183 thirteen year olds have completed versions of the self-consciousness scale. Of these there are test-retest data for 118 sixth form students and for 80 thirteen year olds. In addition, 187 undergraduates and 126 sixth form students who completed the SCS also completed the EPI Form B and the RSES. All in all, these data represent eleven different testing sessions over a period of 3 years. The various analyses performed on these data will now be reported in turn.

CONFIRMATORY FACTOR ANALYSES

The distinction between exploratory and confirmatory - or hypothesis testing - factor analyses (e.g. Child, 1970) is an important one for the present research. The former is conducted when there is no explicit hypothesis on the nature or structure of the items to be analysed, whereas the latter 'treats factor analysis as a test that will either confirm or disconfirm expectations' (Marradi, 1981, p. 27). Here, the distinction should also be made between 'exploratory' and 'blind' (purely empirical) factor analysis (Eysenck, 1953). That is, in both exploratory and confirmatory factor analyses reported in this chapter the intention is to make sense of the factors in terms of self-attention; the intention is not just to see what emerges. While the other side of the coin is 'the brutal feat of making almost any data fit almost any hypothesis' (Hurley and Cattell, 1962, p. 260), Marradi (1981) notes that 'most users of factor analysis are neither unfailing conformationists nor blind factor-fishers' (p. 29). He argues that it is important to use both methods as an aid to interpreting data (Joreskog, 1969). For the present data it was decided to do just that. Analyses of scale responses will begin with the 'test' of

whether, when a 3-factor solution is specified, the three subscales of the SCS are reproduced.

For all samples, data were subjected to factor analysis using SPSS-PA2 method. Both Varimax (orthogonal) and Oblique solutions were obtained, and factor inter-correlations were derived from the latter.

Undergraduate samples

The 'UKC 1980', 'UKC 1981' and 'UKC SURVEY 1983' data all fall exactly into the 3 subscales as predicted (see Appendix A4). For all three of these the Oblique solution is marginally superior to the Varimax one, in that the relevant items load more clearly on the appropriate factors. A summary of the analysis of UKC SURVEY 1983 is reproduced in Table 4.4, below. The private/public factor inter-correlations are .35, .25 and .18 for each of the three samples, respectively. These data allow some confidence in the distinction made between the subscales (see Appendix A4).

The patterns are similar for 'MANCH 1980' and 'UKC 1983'. However, while the social anxiety items all loaded on only one discrete factor for these samples, the public and private factors were not so clear. This was particularly evident for items 2, 6 and 11 from the Public Self-consciousness subscale. For MANCH 1980 item 2 only loaded on the private factor; item 6 loaded equally on both public and private factors. Item 11 loaded marginally on the social anxiety factor (as well as loading strongly on the public factor). For 'UKC 1983' item 11 only loaded on the social anxiety factor. The remainder of the Public subscale items clustered together on a single factor. Thus there may be some question as to what item 11 is measuring.

Some Private subscale items also behaved inconsistently on the 'MANCH 1980' and 'UKC 1983' samples. While these items only loaded

on one discrete factor in 'MANCH 1980' neither item 7 nor item 18 loaded significantly on that factor (or on any other factor). Slightly more worrying is the pattern obtained in 'UKC 1983'. Items 1, 5, 9, 15 and 18 loaded on a discrete 'private' factor. However, items 3, 7, 13 and 20 loaded on the same factor as the public subscale items. In other words, for this sample, the Private subscale seemed to have a substantial 'public' component (see Appendix A4).

Table 4.4

Confirmatory factor analysis of data from UKC SURVEY 1983
(loadings below .30 are omitted)

		ROTATION					
		VARIMAX			OBLIQUE		
Items	Factor	1	2	3	1	2	3
(Scale)	Variance %	45.0	31.9	23.1			
~~(Private)~~							
1			.66				.67
3(-)			.31				.32
5			.52				.51
7							
9(-)			.59				.59
13			.49				.49
15			.50				.47
18			.40				.39
20			.42				.42
22			.44				.46
(Public)							
2		.57			.55		
6		.66			.65		
11		.68			.69		
14		.56			.55		
17		.34			.34		
19		.59			.57		
21		.57		-.35	.59	.34	
(Social Anxiety)							
4				.73		.73	
8				.34		.34	
10				.67		.67	
12(-)				.45		.44	
16				.60		.61	
23				.46		.46	

For the five undergraduate samples the overall picture is fairly encouraging. The social anxiety and public subscales were all clearly

reproduced. In only one (small) sample the Private subscale was also clearly reproduced.

Sixth form samples

The MIXCOLLEGE A (pretest) and MIXCOLLEGE B (retest) samples both produced discrete sets of factors. For both samples the Social Anxiety subscale reproduced itself perfectly. The Public subscale items all loaded on a single factor in MIXCOLLEGE B, although item 17 was missing from the MIXCOLLEGE A factor. As with the adult samples, the Private subscale was less robust. In the MIXCOLLEGE A only items 1, 5, 18 and 20 loaded significantly on their own factor. The remaining six 'private' items did not load on any of the three factors. In the MIXCOLLEGE B all items except 3 and 7 loaded on a unique factor - providing greater confidence in the integrity of the Private subscale (see Table 4.5, below). Item 3 loaded weakly on the same factor as the public items (see Appendix A5).

Table 4.5

Confirmatory factor analysis of data from MIXCOLLEGE B

Items (Scale)	Factor / Variance %	ROTATION VARIMAX 1 54.0	VARIMAX 2 30.2	VARIMAX 3 15.8	OBLIQUE 1	OBLIQUE 2	OBLIQUE 3
(Private)							
1				.75			.80
3(-)		.37			.34		
5				.55			.59
7							
9(-)		.35		.49			.44
13				.38			.36
15				.53			.56
18				.49			.50
20				.40			.39
22							
(Public)							
2		.37		.37	.31		.31
6		.71			.72		
11		.72			.75		
14		.67			.73		
17		.40			.41		
19		.59			.60		
21		.64			.64		
(Social Anxiety)							
4			.82			.81	
8			.38			.36	
10			.67			.66	
12(-)			.55			.55	
16			.56			.56	
23			.51			.50	

The BOYCOLLEGE sample was very small, and the factor patterns should be regarded as providing only weak evidence. However, all of the Social Anxiety items and all of the Public items held together on discrete factors. There was slight overlap in that item 21 of the Public scale also loaded on the social anxiety factor, while item 10 of the Social Anxiety scale also loaded on the public factor. Of items from the Private scale, six loaded on a discrete factor (see Appendix A5). The public/private intercorrelation was .12.

Taken together, the data from the sixth form samples may be regarded as providing further evidence in support of a discrete factor structure for the 3 subscales of the SCS. However, the items of the Private subscale appear to lack coherence.

Summary of undergraduate and sixth form samples' factor analyses

In all eight administrations of the SCS the Social Anxiety and Public Self-Consciousness subscales were factorially reproduced. However, from the Private subscale certain items were consistently missing from the relevant factor. In particular, items 3, 7 and 13 seemed either to disappear or to load on the same factor as the Public subscale items. These items are:

SCS Item No.	
$3^{(-)}$	Generally, I'm not very aware of myself
7	I'm often the subject of my own fantasies
13	I'm generally attentive to my inner feelings.

It seems that these correspond to the 'sensitivity to inner feelings' dimension that Fenigstein et al. (1975) were trying to tap in their original construction of the scale. It should be stressed that in five out of eight analyses the Private subscale did adequately reproduce itself.

The point here is merely that its unidimensionality is more open to question than is that of the Public or Social Anxiety subscales.

General discussion of confirmatory factor analyses

The results of these analyses allow some confidence in the distinction between the public, private and social anxiety dimensions which the SCS is supposed to measure. Despite this confidence it seems prudent to view the Private Self-consciousness subscale with some doubts. From these data reservations could be held about the extent to which items 3, 7 and 13 can be said to be measuring the same construct as the other items on the subscale. These doubts receive some substantiation from data published by Heinemann (1979).

Heinemann's original German replication of the SCS was subjected to a confirmatory 3-factor analysis (n = 317). He found that the three subscales were reproduced quite well. However, some items from the Private and Public subscales straddled more than one factor. From the Private subscale item 3 did not load significantly on the private factor. Item 7 loaded weakly (.35) on the private factor but also loaded on the public (.23) and social anxiety factors (.32). From the Public subscale item 2 ('I'm concerned about my style of doing things') only loaded on the private factor (.51) and item 11 only loaded on the social anxiety factor. Despite these discrepancies Heinemann felt confident that there was 'close correspondence' between the German and American versions with 'structural similarity' making the German scale 'a potentially useful research instrument' (p. 336).

Further work on the German scales (Heinemann, 1983) used confirmatory factor analysis on 5 samples of subjects' SCS responses. In 3 of these item 3 failed to load significantly on the private factor. Item 7 was found to load on more than one factor in all 5 samples. Item 22 from

the Private subscale was also rather unstable. These data provide corroboration for the findings reported from the present research. It should be noted, however, that none of Heinemann's (1983) samples reproduced the three subscales as cleanly as those used in the present research. This may reflect either translation error or cultural differences in the nature of self-consciousness. For the moment it seems that the Self-Consciousness Scale does indeed measure three distinct dimensions, on the basis of confirmatory factor analyses. Finally, although the three subscales can be reproduced, it is of interest to discover whether the SCS actually measures more than three factors. Exploratory factor analyses should reveal more than three factors if this is in fact the case.

EXPLORATORY FACTOR ANALYSES

Undergraduates (see Appendix A6)

When the analyses were allowed to produce their best solution (SPSS, PA2) three of the samples produced seven factors and two produced eight factors from the SCS (see Appendix A6). These will be discussed in terms of the coherence of items within each subscale; i.e. how much they tend to load together on a single factor.

(i) Social Anxiety: For UKC 1980, MANCH 1980 and UKC SURVEY 1983 the Social Anxiety scale was reproduced on a unique factor. No other items loaded significantly on that factor. For UKC 1981 item 8 loaded on a different factor from the other Social Anxiety items, and item 17 from the Public scale loaded on the social anxiety factor. For UKC 1983 items 8 and 10 loaded on a different factor from the others. Thus, with respect to the Social Anxiety scale, there is a fairly readily reproduced factor.

(ii) Public Self-consciousness: Only in UKC 1981 was there a perfect

reproduction of the Public Self-Consciousness subscale. For UKC SURVEY 1983 items 17 and 21 loaded on a different factor from the others. For UKC 1980 item 2 loaded on a different factor and for UKC 1983 the Public items did not all hang well together on any particular factor. Thus, for the Public Self-consciousness scale one might hold reservations about the contributions of items 2, 17 and 21.

(iii) Private Self-consciousness: This subscale has the largest number of items (10) and therefore the potential for the largest number of factors. In fact, the items did not all fall on a single factor for any of the undergraduate samples. Doubts have already been raised about the validity of item 3, on the basis of the confirmatory factor analyses. UKC 1981 reproduced the Private scale on a single factor but with item 3 absent. Generally, however, two factors emerged from the Private scale items. One of these includes items 13 and 20 and sometimes items 18 and 22. The other is more substantial; it is based around items 1, 5, 15 and 18, with the occasional addition of items 7 and 3. Despite this lack of internal coherence, the items from the Private scale loaded on factors associated with the other two subscales only occasionally. This was the case for UKC SURVEY 1983 (see Table 4.6, below). These findings are consistent with the fact that the Public and Private subscales correlate at about $r = .3$.

Table 4.6

Exploratory factor analysis of data from UKC SURVEY 1983

		ROTATION													
		VARIMAX							OBLIQUE						
ITEMS (Scale)	Factor	1	2	3	4	5	6	7	1	2	3	4	5	6	7
	Variance %	16.7	12.5	10.0	6.1	5.7	4.7	4.6							
PRIVATE															
1					.31	.43	.38				-.35				.30
3(-)						.57									-.68
5					.59								.57		
7					.34								.35		
9(-)						.50					.34	-.41			-.40
13							.35	.42			-.82				
15							.77								
18					.56								.56		
20								.77				.76			
22						.34									
PUBLIC															
2			.50						.39						
6			.54	.38					.42					.34	
11			.36	.61											
14			.77						.79						
17					.34									.33	
19			.57						.51						
21					.79									.85	
SOCIAL ANXIETY															
4		.77								.79					
8		.41								.44					
10		.68								.68					
12(-)		.43								.42					
16		.58								.55					
23		.44								.39					

Sixth form students[8] (Appendix A7)

(i) Social Anxiety: In MIXCOLLEGE B these items all loaded on a single factor and no items from the other subscales loaded on that factor. In MIXCOLLEGE A items 4, 10, 12 and 16 also held on a unique factor but items 8, 16 and 23 loaded on a factor with item 5 from the Private subscale.

(ii) Public Self-consciousness: This scale was reproduced on a unique factor in both the MIXCOLLEGE A and MIXCOLLEGE B samples.

(iii) Private Self-consciousness: Three factors emerged from MIXCOLLEGE A and 4 from MIXCOLLEGE B. One of these centred on items 1 and 15, another on items 5 and 9. A factor comprising items 13 and 20 (and which was obtained with undergraduate samples) also emerged from the retest. The results of the MIXCOLLEGE B analysis are presented in Table 4.7, below (and in Appendix A7).

Table 4.7

Exploratory factor analysis of data from MIXCOLLEGE B

		ROTATION												
		VARIMAX							OBLIQUE					
ITEMS (Scale)	Factor	1	2	3	4	5	6	7	1	2	3	4	5	6	7
	Variance %	21.5	13.1	8.0	6.1	5.6	4.7	4.4							
PRIVATE															
1				.47	.34						.44		.36		
3(-)		.37			.35							-.33			
5					.78							.78			
7							.58						.59		
9(-)					.33	.51									.50
13						.55	.37						-.35		.50
15				.81							.83				
18				.47							.45				
20							.52						.50		
22						.49									.50
PUBLIC															
2		.30												-.58	
6		.68							.63						
11		.74							.74						
14		.69							.75						
17		.37							.33						
19		.58							.54						
21		.65			.30				.56						
SOCIAL ANXIETY															
4			.87							.92					
8			.37							.34					
10			.63							.62					
12(-)			.54							.54					
16			.59							.58					
23			.50							.44					

General findings from exploratory factor analyses

We are now in a position to describe the factors obtained in the undergraduate and sixth form samples. First, and simplest, the Social Anxiety scale consistently reproduces itself as a single factor. Second, although the items of the Public Self-consciousness scale hold together fairly well, items 2, 17 and 21 seemed to be rather weak components. These are:

Item No.	
2	I'm concerned about my style of doing things
17	One of the last things I do before leaving the house is look in the mirror
21	I'm usually aware of my appearance.

The remaining items are more specific to self-presentational concerns. These may be regarded, more confidently, as the 'core' of the scale. Third, the Private Self-consciousness subscale may be regarded as a composite measure of a number of related underlying dimensions. Item 3 ('Generally I'm not very aware of myself') does not seem to contribute reliably to a Private factor. For the undergraduate samples the dimensions of the Private scale are based around 3 sets of items:

Factor	Item No.	
1.	18	I sometimes have the feeling that I'm off somewhere watching myself
	22	I'm aware of the way my mind works when I work through a problem.
2.	1	I'm always trying to understand myself
	5	I reflect about myself a lot
	15	I'm constantly examining my motives.
3.	13	I'm generally attentive to my inner feelings
	20	I'm alert to changes in my mood.

These were moderately replicated in the sixth form sample - a 1 and 15 factor; a 13 and 20 factor; and a 5 and 9 ('I never scrutinise myself') factor.

Returning to Fenigstein et al.'s (1975) original item selection procedure, it can be seen that Factors 1, 2 and 3 above correspond with the headings 'a tendency to picture or imagine oneself'; 'preoccupation with past, present and future behaviour'; and 'sensitivity to inner feelings', respectively. While all of these may contribute to the general factor 'Private Self-consciousness', it appears from the present data that they may be discriminable sub factors.

CHILDREN

In the course of the present research the problem arose of how to assess the effects of self-attention on children's behaviour. While children have been used as subjects in very many intergroup relations studies (cf. Tajfel, 1978), there appears to be only one experiment which has attempted to use self-awareness as a predictor of children's behaviour (Beaman et al., 1979). This is not to say that children's capacity for self-perception and self-knowledge has never been examined (Lewis and Brooks-Gunn, 1979), but the social psychological literature and theories of self-awareness have not usually referred to children or used them as subjects. Beaman et al.'s study used a mirror manipulation of self-awareness; this was impactful on children aged 8 and over. The many problems with that study are discussed in more detail in a later chapter. For the present, the point is that it was felt necessary to devise a measure of children's self-attention which did not involve environmental manipulation of their behaviour. It was decided to see whether or not the basic factors of private and public self-consciousness which adults report are also present in children. To the extent that

these factors can be meaningfully reproduced they would provide a useful way of accounting for the effects of self-attention on the behaviour of children.

The first attempt to devise a self-attention scale for children was made in the context of a large experiment on the effects of intergroup similarity and goals on intergroup behaviour (Brown and Abrams, 1982). The subjects were 13 year olds from two large secondary schools in Kent. The sample (SIMILARITY) was approached twice (pretest/retest) and was asked to fill in a 15 item questionnaire (Appendix A3). Of these items 5 were drawn from the Private Self-consciousness subscale, 4 from the Public scale, 1 from the Social Anxiety scale and 5 were designed to tap personal attitudes to group cohesiveness, based partly on Pettigrew's (1958) conformity scale. Some of the SCS items have been slightly modified in order to make them easier to understand. The three sets of items are presented in Table 4.8 below with their original SCS item numbers. Any that have been modified are asterisked. On the actual scale the items are in a mixed order (see Appendix A3).

Table 4.8

Self-consciousness scale for 12-13 year olds:
'A priori' definition of items

SCS No.	Item No.	
Private items		
(1)	1	I'm always trying to understand myself
(5)*	2	I think about myself a lot
(13)*	7	I'm generally aware of my inner feelings
(20)	11	I'm alert to changes in my mood
(22)*	15	I'm aware of the way my mind works when I'm trying to solve a problem.
Public items		
(6)*	4	I'm concerned about the way I appear to others
(11)	6	I'm self-conscious about the way I look
(14)	9	I usually worry about making a good impression
(19)*	12	I'm concerned what other people think of me.
Social Anxiety		
(7)*	14	I feel more comfortable working alone than I do if I'm working with a group of others.
Group items		
	3	I'm quite a similar sort of person to my friends
	5	When I'm with a group of friends I often find myself thinking the same way as them
	8	When I'm in a team game I think more about how my team is doing than about how I'm doing myself
	10	When I'm in school uniform I feel very aware of being a member of my school
	13	I prefer to be loyal to my own group than to try to co-operate with other groups.

The confirmatory factor analyses of this scale are reported in Appendix A8. Of more interest are the results of exploratory factor analyses. There is little a priori reason to expect Public and Private items to load on distinct factors since it is perfectly possible that children experience a sort of general self-consciousness in which the public and private domains are ill-distinguished.

SIMILARITY A (pre-test, n = 182)

Factor 1: is composed of items 2, 4, 6 and 12. It is quite clearly a public self-consciousness factor. While one item (2) is a private self-consciousness one, it does not load significantly in the Oblique rotation of the exploratory analysis.

Factor 2: is composed of items 1, 7 and 11 - these are all from the Private Self-consciousness scale.

Factor 3: consists of items 9 and 10 and is not easily interpretable.

Factor 4: is composed of items 2, 5 and $14^{(-)}$. The most important item is 14, which suggests that this factor revolves around feeling relaxed within groups.

Factor 5: includes items 8 and 15, and again is not easily interpretable.

This analysis has successfully reproduced private and public Self-consciousness as dependable main factors in children's responses to this questionnaire. From the Oblique analysis the correlation between these two was .19, indicating that they are relatively distinct aspects of children's self-consciousness.

SIMILARITY B (post-test, n = 80)

Again, 5 factors were produced (see Appendix A8). As before, Factor 1 is clearly public self-consciousness - all of the Public items and only one Private item load significantly on it. The remaining

factors are rather mixed, and cannot easily be interpreted, although factor 2 contains two Private items. Hence, based on the pre- and post-test responses to this questionnaire, it appears that children report public self-consciousness and, rather less clearly, private self-consciousness as a recognisable component of their experiences.

MINIMAL GROUP (n = 58)

The subjects in this sample were 10-11 years old. They were given a revised version of the questionnaire used in the SIMILARITY experiment. Three weeks prior to the experiment itself, children were asked to fill in the 12 item questionnaire (Appendix A2). Of these items, 3 were based on the Private Self-consciousness subscale; 3 were based on the Public Self-consciousness subscale and the remainder were designed to assess subjects' motivation to conform. These items are presented together in Table 4.9 below (but in a mixed order on the actual questionnaire - see Appendix A2).

Table 4.9

Self-consciousness scale for 10-11 year olds:
'A priori' definition of items

SCS No.	Item No.	
Private items		
(1)	8	I am always sure about what I think
(13)	5	I notice my inner feelings a lot
(20)	11	I can always tell when my mood is changing.
Public items		
(*)	12	I compare myself with other people a lot
(11)	2	I think a lot about the way I look
(19)	3	It is important what other people think of me.
Conformity items		
	6	I like to be the same as my friends
	7	It is always best to mix with the crowd
	9	It is better to agree with people than to argue about what you think
	1	I don't change my mind about things
	4	I always say what I think
	10	People can't talk me into doing things that I don't want to.

* Item 12 is based on an amalgamation of several 'Public' items. All SCS items have been re-worded so as to make them more comprehensible to 10 year olds.

The exploratory factor analysis yielded six factors (see Appendix A9). Factor 1 consisted of items 4, 5, $7^{(-)}$, 8 and 11. Three of these items are from the Private scale, and the other two might be taken to represent self-certainty. In general, it seems reasonable to suppose that this is a 'private' factor.

Factor 2 consisted of items $5^{(-)}$, 6, 9 and 12. This seems to involve a wish to be socially acceptable, and a lack of individuality. This may be considered to be a 'public' factor to the extent that the public self is strongly implicated, although there is clearly an element of conformity involved. Awareness of self is not very prominent. The remaining four factors are rather hard to interpret, and it does not appear that they are of any potential use for the research reported in the remainder of this thesis. The reader is therefore referred to Appendix A9 for full details.

Construction of children's self-consciousness scales

These analyses suggested the possibility of constructing self-consciousness scales for SIMILARITY and MINIMAL GROUP subjects. For SIMILARITY, the scales were derived from Factors 1 and 2 of SIMILARITY A, and comprise the following items (loadings are in brackets):

Table 4.10

Private and public self-consciousness scales from SIMILARITY A

Scale label	Item loadings	
PRIVATE	(.46)	I'm always trying to understand myself
	(.52)	I'm generally aware of my inner feelings
	(.45)	I'm alert to changes in my mood.
PUBLIC	(.75)	I'm concerned about the way I appear to others
	(.66)	I'm self-conscious about the way I look
	(.53)	I'm concerned what other people think of me.

Future reference to Private and Public 'scales' with respect to this sample involves subjects' scores on those items summed.

For MINIMAL GROUP the scales were also derived from Factors 1 and 2, although they differ somewhat from those constructed from SIMILARITY A.

Table 4.11

Private and public self-consciousness scales from MINIMAL GROUP

Scale label	Item loadings	
PRIVATE	(.82)	I always say what I think
	(.41)	I notice my inner feelings a lot
	(.70)	I am always sure about what I think
	(.59)	I can always tell when my mood is changing.
PUBLIC	(.78)	I like to be the same as my friends
	(.81)	It is better to agree with people than to argue about what you think
	(.31)	I compare myself with other people a lot.

The α reliability coefficients for Private and Public scales are .48 and .66 for SIMILARITY and .58 and .53 for MINIMAL GROUP samples, respectively. Given the rather under-piloted nature of these scales, these coefficients seem quite encouraging. In the SIMILARITY sample the test-retest reliability ($n = 74$) of the Public scale ($r = .67$) was better than that of the Private scale (.30). The correlation between Private and Public scores was low - .09 for SIMILARITY A and .15 for MINIMAL GROUP. Furthermore, there were no significant sex differences (by t-test) in the scores among either sample.

The main conclusions to be drawn from these data about the nature of self-consciousness in children are twofold. First, it does seem that private and public self-consciousness are separable components of self-attention at ages 10-11 and 13. Second, and of potentially greater interest, while private self-attention is a better defined factor among 10-11 year olds, public self-attention is more pervasive and well defined among 13 year olds. This difference may reflect a shift from egocentric

to socialised forms of self-awareness. That is, as children get older they attach increasing importance to the way they are perceived by others.

For the present research, it is probably justifiable to use the 'scales' derived from the exploratory factor analyses in order to partition subjects in terms of their levels of different kinds of self-consciousness. These scales lack proven reliability but appear to have construct and face validity and are as theoretically meaningful as the conventional SCS.

DISCRIMINANT VALIDITY AND RELIABILITY OF THE SCS

While factor analyses have demonstrated how reproducible the SCS subscales may be, further light can be shed on the discriminant validity of each by examining their correlatedness with one another and with other variables. Additionally, the internal reliability of the subscales can be assessed using Cronbach's α coefficient, and also by test-retest correlations.

Inter-correlation analyses[9]

For these analyses, scores were derived by summing the responses to the items within each subscale. The correlations between subscales, for each sample, are presented in Table 4.12, below.

Table 4.12

Intercorrelations between subscales of the SCS for each of the samples of subjects

Sample \ Scales	Age	Private/Public r	n	Private/ Soc.Anx. r	n	Public/ Soc.Anx. r	n
UKC SURVEY 1983	18+	.23***	187	.10	187	-.02	187
UKC 1983	18+	.16	68	.06	68	.19	68
UKC 1981	18+	.28**	71	.11	71	.26*	71
MANCH 1980	18+	.31**	73	.05	73	.27*	73
MIXCOLLEGE A	16-17	.32***	134	.02	134	.15*	134
MIXCOLLEGE B	16-17	.50***	124	.09	123	.16*	125
UKC 1980	18+	.39***	67	.03	67	.12	67
MEAN r		.33		.07		.13	
SIMILARITY A	13-14	.09	180	-.08	183	.01	182
SIMILARITY B	13-14	.34***	80	-.02	81	-.01	80
MINIMAL GROUP	10-11	.15	64	-	-	-	-
BOYCOLLEGE†	16-17	.29*	41	-.07	42	.08	40

* $p < .05$
** $p < .01$
*** $p < .001$

† This sample is not included with the other adult samples because all of its subjects were male.

The mean r's reported in Table 4.12 are consistent with those found by other researchers (see Table 4.2 above). Of special interest is the nature of the Public/Private correlation. Wicklund and Gollwitzer (1983) reported that this varies from study to study from as low as .23 (Fenigstein et al., 1975) to as high as .61 (Bernstein, 1982). In the five samples studied by Heinemann (1983) the correlations ranged from .28 to .50. In the present research the correlation between Private and Public ranged from r = .16 (UKC 1983) to r = .50 (MIXCOLLEGE B). Most studies report the other subscale intercorrelations as being r < .10 with considerable consistency.

To summarise, data from the present research are highly congruent with those of other researchers: the correlation between Public and Private subscales seems to vary from sample to sample, but is nearly always significant and .15 < r < .60. The $\bar{r}$ = .33 from the samples drawn here is about the same as the average correlations reported in the literature. The next area of exploration is the discriminant validity of the subscales with regard to other measures of individual differences.

Discriminant validity from Extroversion, Neuroticism and Self-Esteem

As has already been noted, it appears that there is a reliable negative correlation between all three SCS subscales and levels of self-esteem. This has been regarded as providing supportive evidence for the assumption that self-focused attention promotes self-evaluation, which in turn highlights unpleasant discrepancies between a person's actual and ideal states (Duval and Wicklund, 1972; Wicklund, 1975). However, it is also possible that self-attention is a consequence of low self-esteem or depression. If so, it is likely that measures of self-consciousness are really indirect indices of more general

negative states and have little discriminant validity from measures which tap 'higher order' traits. For example, Smith and Greenberg (1981) have shown that private self-consciousness is clearly related to depression.

Extroversion/Introversion could be construed as a 'higher order' dimension of personality which directs the focus of attention. It could be that very extroverted people are very publicly self-conscious but are lacking in social anxiety and that very introverted people are very privately self-conscious. Neuroticism might also encourage obsessive private self-focus and social anxiety. The obvious way to examine these possibilities is to look at the correlations between the SCS subscales and those of the EPI (Form B). The association between these scales has never been examined for the English language version - a rather glaring omission in the early validation studies.

189 undergraduates (UKC SURVEY 1983) and 134 sixth formers (MIXCOLLEGE A) completed the SCS, the EPI Form B and the Rosenberg Self-Esteem Scale. As can be seen in Table 4.13 below, the pattern of correlations is similar within both samples. Private has a low negative correlation with Extroversion and Self-Esteem, a moderately positive correlation with Neuroticism. Public has a negligible negative association with Self-Esteem, a weakly positive association with Extroversion and an unexpectedly moderate positive correlation with Neuroticism. Finally, Social Anxiety is moderately positively correlated with Neuroticism and negatively with both Extroversion and Self-Esteem.

Table 4.13

Correlations between the SCS, the EPI (B) and the RSEI

Sample / Scales	UKC SURVEY 1983 r	n	MIXCOLLEGE A r	n
Private Self-consciousness				
Public	.23***	187	.32***	134
Social Anxiety	.10	187	.02	134
Extroversion	-.13*	183	-.16*	126
Neuroticism	.32***		.28***	126
Self-esteem	-.21***	185	-.04	133
Public Self-consciousness				
Social Anxiety	-.02	187	.15*	134
Extroversion	.25***	183	.09	126
Neuroticism	.25***		.49***	126
Self-esteem	-.02	185	-.19*	133
Social Anxiety				
Extroversion	-.40***	183	-.36***	126
Neuroticism	.43***		.45***	126
Self-esteem	-.35***	185	-.33***	133
Extroversion				
Neuroticism	-.07	186	-.04	126
Self-esteem	.26***		.14	126
Neuroticism				
Self-esteem	-.38***	186	-.52***	126

*** $p < .001$
* $p < .05$

These data support the view that self-attention is potentially negative. Private self-consciousness is mildly associated with neuroticism; public self-consciousness is associated with both neuroticism and extroversion, while social anxiety combines introversion, low self-esteem and neuroticism. The correlations obtained are of interest because they are consistent with the results of Turner et al. (1978), who reported a large number of significant correlations between social anxiety and other measures but few for public and private. This suggests that, while the social anxiety factor hangs together better than the public or private ones, it lacks the discriminate validity of either. That is, the behavioural effects associated with social anxiety may be explained by recourse to a large number of other traits with which it correlates. Although private and public self-consciousness do correlate significantly with neuroticism, extroversion and self-esteem, these correlations are by no means as high as those for social anxiety, and permit greater confidence in the relative independence of these traits. Again, data reported from 2 of Heinemann's (1983) samples are consistent with those obtained in the present research. (He also reports no significant association between the SCS subscales and Rotter's Internal-External locus of control scale.)

Reliability

(i) Test-retest reliability

It is possible to assess this test-retest reliability either by correlating total test scores with total retest scores (Fenigstein et al., 1975) or by examining the test-retest correlation of individual items (Heinemann, 1979). Heinemann (1979) notes the rather short time lag between Fenigstein et al.'s test and retest. In his 1979 study,

Heinemann had a 4 week gap. Two sets of subjects participated in retests in the present research. Only the responses of the 118 sixth formers (MIXCOLLEGE) should be directly compared with Heinemann's and Fenigstein's data. However, the test-retest correlations for the factors derived from the 13 year old subjects (SIMILARITY) are also included (Table 4.14, below).

Table 4.14

Test-retest correlations of SCS subscales

(Sample)	Retest gap (weeks)	Private	Public	Social Anxiety	(r)
Fenigstein	2	.84	.79	.73	152
Heinemann	4	.77	.83	.82	81
MIXCOLLEGE	6	.53	.48	.80	118
SIMILARITY	6	.30	.67	.39	74

From these data it is immediately clear that retest reliability was rather weak in the present research. This is probably attributable in part to the fact that the delay was rather longer than those in either the Fenigstein or Heinemann research. Remarkably, item 3 from the MIXCOLLEGE sample had a retest correlation of r = .01. This means that there is no consistency in subjects' responses to that item: explaining its absence in the private self-consciousness factors (see Appendix A11 for item retest correlations).

(ii) Internal reliability - Cronbach's coefficient alpha (α)

Of all the studies reporting on aspects of the SCS, only one (Turner,R.G., 1980) has published internal reliability coefficients for the subscales. These were alphas of .66, .76, and .80 for the Private, Public and Social Anxiety scales, respectively (n = 64). The internal reliability refers to the degree of inter correlation among

items in a scale[10]. The α statistic is an index of how well a scale reflects a single factor. It is presented here as a complement to the confirmatory factor analyses reported above. (These showed how well each factor reflected a single scale.)

As can be seen from Table 4.15 below, the α coefficients obtained in the present research are close to those obtained by Turner. The average α coefficients for the undergraduate and sixth form samples are $\bar{\alpha}$ = .67; $\bar{\alpha}$ = .76; and $\bar{\alpha}$ = .73 for the Private, Public and Social Anxiety scales, respectively. These findings provide further evidence that the subscales have a modicum of integrity, but that the Private subscale is possibly slightly unreliable. Both the α coefficients and the factor loadings of items in the Private subscale are sources of doubt as to its construct validity and reliability.

Table 4.15

Unstandardised alpha coefficients for SCS subscales

		SCALES			
Sample	(n)	Private	Public	Social Anxiety	Private + Public
UKC SURVEY 1983	186	.72	.75	.71	.75
UKC 1983	68	.61	.71	.79	.67
UKC 1981	71	.73	.83	.70	.80
MANCH 1980	73	.72	.77	.75	.77
UKC 1980	67	.80	.72	.72	.82
MIXCOLLEGE A	134	.54	.74	.72	.71
MIXCOLLEGE B	124	.73	.79	.75	.82
BOYCOLLEGE	44	.39	.79	.72	.69
SIMILARITY A	178	.48	.66	-	.60
SIMILARITY B	80	.22	.70	-	.60
MINIMAL GROUP	63	.58	.53	-	.56

SEX DIFFERENCES IN SELF-CONSCIOUSNESS

Neither the Fenigstein et al. (1975) nor the Turner et al. (1978) nor the Heinemann (1979) studies reported any sex difference in responses to the SCS subscales. Heinemann (1983) reports significant sex differences in responses to six of the items. A table of means and t-tests between males' and females' subscale scores for each sample in the present research is provided in Appendix A12. These can easily be summarised. There were no significant differences in Private self-consciousness. For UKC SURVEY 1983 (114 males, 49 females) females were more publicly self-conscious ($\bar{x}$ = 25.7) than were males ($\bar{x}$ = 23.9); $t = 2.27$, $p < .05$. A similar pattern was obtained in MANCH 1980 (22 males, 51 females) and UKC 1980 (31 males, 36 females), both $ps < .10$. In all of the adult samples females scored slightly higher than males on the Public self-consciousness scale. Thus there is a consistent, but not usually reliable, difference. For Social Anxiety, in MANCH 1980 females scored significantly higher ($\bar{x}$ = 19.49) than did males ($\bar{x}$ = 17.36), $t = 2.22$, $p < .05$. Although females did score slightly higher than males in all other samples, apart from UKC 1983, the differences did not attain significance.

An examination of differences in scores on individual items reveals item 20 to be a persistent 'offender' (in UKC SURVEY 1983, UKC 1983, MIXOLLEGE A and MIXCOLLEGE B, and in Heinemann, 1983). This item, 'I am alert to changes in my mood', along with item 8, 'I have trouble working when someone is watching me', is answered with more agreement by females than by males in four of the present samples.

These items, on which sex differences persist, are from the Private and Social Anxiety scales, respectively. Given that the only total score differences are on the Public self-consciousness subscale, it appears that whatever sex differences exist are not very strong. It remains to

be seen whether they are important in a theoretical sense.

THE MEANING OF MEASURES OF SELF-CONSCIOUSNESS

Having assessed the statistical properties of the scales used in the present research it is now worth taking a broader view of them and of what it is that they are supposedly measuring. This section re-examines some of the theoretical assumptions behind the concepts of public and private self-consciousness. The relation between these theoretical issues and more pragmatic ones is important since the construction of a strong research instrument is a fruitless enterprise unless it can be used in a theoretically meaningful way. Similarly, the adequacy of a theory cannot be tested unless the methods used are appropriate. This section is divided into 3 parts: the relation between the public/private and other distinctions (e.g. personal/social); the combination of situational and dispositional components of self-attention; and the meaning of items making up the Private and Public Self-consciousness subscales.

The private/public distinction and its relationship to other constructs

The distinction between public and private has been an underlying theme in literature and drama (for example, the use of disguise in Johnson's play, 'Volpone'). People have a common-sense understanding of the terms 'public' and 'private' in relation to social roles; religion; impression formation and motivation (Bensman and Lilienfeld, 1979). In sociological and social psychological theory, the distinction has also been afforded a central place. The terms private and public crop up regularly in the titles of articles in the Journal of Research in Personality, Personality and Social Psychology Bulletin, Journal of Personality and Social Psychology. Recently, their greatest usage has

been amongst theorists concerned with impression management (Jones, 1964), self-presentation (Arkin, 1981; Jones and Pittman, 1982), self-monitoring (Snyder, 1974), and self-evaluation (Tesser and Paulhus, 1983).

The distinction reinforces the idea that the experience of self may differ radically from the appearance of self. That is, one's public image may not reflect the true, private self. Theorists usually cite,on the one hand, Mead (1934) to argue for the social construction of the private self and, on the other hand, Goffman (1959) to argue for the social exposure of some other kind of self. The same two sociologists provide the backdrop for self-awareness theories. Carver, Scheier and Buss have all regarded public and private aspects of self as being empirically distinct as well as conceptually distinguishable. In fact, the average correlation between the Private and Public self-consciousness subscales ($r \approx .3$), and the fact that both public and privately induced self-attention may have similar effects (Carver, 1974, 1975; Scheier, Fenigstein and Buss, 1974),lead one to suspect that public behaviour has ramifications for private feelings of self-worth (Jones, Gergen and Davis, 1962) and that private motives may determine public behaviour (Baumeister, Cooper and Skib, 1979; see also Chapters 1 and 3).

There have been two recent developments which relate to the self-awareness view of public and private selves. The first, and best known, is Snyder's (1974) idea of self-monitoring. Snyder argues that some people are highly conscious of the way that others are perceiving them and 'use these cues as guidelines for monitoring (that is, regulating and controlling) his or her own verbal and non-verbal self-presentation' (Snyder, 1979, p. 89). Others are 'not so vigilant to social information ... [and] seem, in a functional sense, to be controlled from within by

their affective states and attitudes' (p. 89). Snyder's Self-Monitoring Scale (SMS) is designed to detect where individuals fall on the continuum from High to Low self-monitoring.

This construct bears strong resemblances to high or low public self-attention, and was discussed by Scheier and Carver (1981). They suggested that high SM corresponded to high public/low private self-consciousness, and that low SM corresponded to low public/high private self-consciousness. They then reject the whole self-monitoring construct on the grounds that it 'forces a false dichotomy' on respondents by assuming 'that an awareness of the public self is always inversely related to an awareness of the private self' (p. 195). Since public and private self-consciousness correlate positively it is untenable to claim that they are opposites. Scheier and Carver (1981) conclude that 'the ambiguity inherent in the Self-Monitoring Scale would seem to render it a less desirable instrument than the SCS for investigating the research problem' (p. 195), in which they are interested[11].

The conceptual relationship between the public/private distinction and Tajfel and Turner's (1979) social/personal one has already been discussed (in Chapter 2). However, other researchers have attempted to operationalise personal and social identity using scales (Cheek and Briggs, 1982). These researchers define social identity as 'a person's social roles and relationships', whereas personal identity is 'one's private conception of self and feelings of continuity and uniqueness' (p. 401). While their definition of personal identity is consistent with Tajfel and Turner's, they conceive of social identity as a function of interpersonal rather than intergroup relations. Cheek and Briggs (1982) obtained the completely unsurprising finding that subjects high in private self-consciousness placed more importance on personal identity (e.g. 'my emotions and feelings'), and those high in public self-consciousness

placed greater weight on social identity (e.g. 'the ways I have of influencing and of affecting others'). The researchers concluded that 'public self-consciousness is related to social identity, but unrelated to personal identity, whereas private self-consciousness is related to personal identity but unrelated to social identity' (pp. 405-406).

This claim is made on the basis of their definition of the constituents of these identities, thereby perpetuating a fallacy that what is private cannot involve anything which is social. The weakness of such a position is revealed by Turner's (J.C., 1982) discussion of social self-stereotyping. This is a process whereby a person adopts a self-definition which accords with stereotypic criterial attributes of a social group. In fact, none of Cheek and Briggs' (1982) 'social identity' items enquired as to the importance of membership and self-definition in terms of social groups. Their research confirms that private self-consciousness involves self-definition and that public self-consciousness involves self-presentational concerns, but it does not shed light on the socialness or personalness of those concerns.

A further development of self-consciousness measurement has incorporated physical domains. Miller, Murphy and Buss (1981) devised a scale of 'body-consciousness'. This was designed by using 'a set of items that, taken at face value, dealt with awareness of either the private or the public aspects of the body' (p. 399). The factor analysis revealed both a public and a private factor which were found to correlate at $\simeq .7$ and $r \simeq .4$ with Public and Private self-consciousness scales, respectively. Somewhat alarmingly, it is concluded that 'private body consciousness and private self-consciousness, though related, are distinct personality traits, but public body consciousness and public self-consciousness seem to be essentially the same' (p. 401). Hence,

we cannot be sure whether public self-conscious people are concerned mainly with their social appearance (as presumed by Miller, Murphy and Buss, 1980), with their social performance (as presumed by Scheier and Carver, 1981) or with their social identity (Cheek and Briggs, 1982). In Turner et al.'s (R.G., 1978) view, the Miller et al. (1980) study would surely threaten the discriminant validity of the public self-consciousness scale!

Situational and dispositional determinants of self-attention

An issue which has received little discussion is the inter-relation between dispositional tendencies to focus on an aspect of self and situational forces. The main question is whether there is an additive or multiplicative relationship. In the first case, a person who is dispositionally 60% self-focused would need only 40% situational pressures before a 'maximum' 100% of attention was self-focused. On the other hand, such a person could never be regarded as completely unself-focused. Conversely, a person who is dispositionally 0% self-focused would only be made 40% self-focused by the situation. The same reasoning can be applied with specific respect to the public and private domains of self-focus. For this reason, it has been argued that only persons who are dispositionally low in self-focus of a given type will be responsive to the introduction of a situational manipulation (for highs, a ceiling effect will occur). Conversely, only in a non-self-focused situation will there be detectable differences between high and low self-focus persons.

Scheier (1980) has concluded that 'the effects of private and public self-consciousness are clearest when subjects are selected in a way ensuring that their standing on the subsidiary dimension is low' (p. 399). Similarly, Carver and Humphries (1981) explained their results

in terms of 'experimental manipulations of self-focus [being] effective only among persons who are low in dispositional self-consciousness' (p. 550). This additive model assumes that both ceiling and floor effects occur. In contrast, Buss (1980) advocates an unlimited additive model where there is 'no reason why highs ... are so self-reflective that an inducer could not elevate their private self-consciousness' (p. 21). Buss assumes that an inducer and disposition will both have main effects.

Buss also discounts the multiplicative model (not even considered by Carver or Scheier). Such a model would propose that dispositional self-focus is a disposition to respond to external cues by turning attention toward the self (cf. Hull and Levy, 1979). Such a position would argue that (i) with no situational inducer of self-focus no self-focus will occur, and (ii) that the amount of self-focus that does occur is determined by the dispositional propensity to react to such inducers. This model mimics Schachter's (1971) 2-factor theory of emotion, whereby complete absence of either element precludes the possibility of experiencing emotion. For private self-focus, Buss (1980) rejects this possibility, being able to think of 'no reason why highs should be specially susceptible to any manipulation when they can so easily turn their attention inward without any external influence' (p. 21). In fact, there is no evidence at all to attest to the idea that self-focus may occur with no prompting cue. For public self-focus, Buss suggests a different rule: 'Highs react more strongly to inducers ... than do lows ... in the absence of an inducer neither highs nor lows are aware of themselves as social objects' (pp. 35-36). Here, Buss (1980) has distinguished private and public self-attention in terms of process, whereas later on (p. 39) he asserts: 'It is the content or domain (not the mental process) that determines whether the

state is private or public self-awareness.' Buss's theory is therefore self-contradictory and unparsimonious. However, this allows no credit to Carver and Scheier, who do not even consider the multiplicative model in their analysis (Scheier and Carver, 1981).

Logically, the multiplicative model makes more sense. If self-focus is conceptualised as being on a scale from zero to one (none to total) the multiplicative model claims that if either component (trait versus situation) is zero then self-focus will be zero. Similarly, only if both are one will self-focus be one. The curve is therefore asymtotic, with greatest impact of either component when the other is moderate to high. In contrast, the additive model specifies either (i) that components can sum to two or (ii) that,given a ceiling effect, any increment in either component produces a corresponding increase in self-focus. Such a position looks weak when concrete examples are sought. Is a highly public self-conscious person self-focused when asleep or alone? Is a highly private self-conscious person self-focused even when drunk? More realistically, it seems likely that the presence of an audience is unlikely to increase the public self-focus of a person who is completely unself-conscious of his or her self-presentation. In other words, it would be possible to conceptualise people as being high or low 'audience reactors' (i.e. Self-Monitors), thereby avoiding the pitfalls of the additive and multiplicative models by making the disposition situation-specific[12].

The meaning of private and public self-consciousness items

The possibility that 'private self-consciousness' may be composed of several sub-factors has already been discussed. It is, however, important to define the limits of what might be predicted on the basis of a high or low score on the private subscale. The Private Self-Consciousness

subscale items all include the idea of self-evaluation and self-assessment. They seem to reflect the 'self-aware' part of Wicklund's (1975) theory in so far as they concern the self as a reference point. What they do not encompass are those things which are private, such as one's knowledge of music, but which do not implicate the self-concept (as one's attitude to music might do).

Public self-consciousness may, as Wicklund and Gollwitzer (1983) put it, be 'no self-awareness at all' (p. 44). Indeed, the 7 items imply a concern for social appropriateness and appearance, but do not generally record the extent to which subjects attend to themselves (2 items). Wicklund and Gollwitzer (1983) argue that public self-consciousness might be 'an orientation toward immediate social pressures' (p. 25). However, it is possible (likely, even) that such an orientation would entail self-awareness and a comparison of self with standards. The items concern aspects of the public self,which must require self-awareness in order to be made socially meaningful (Mead, 1934). High scorers on this scale would not be predicted to attend to non-meaningful public aspects of self, such as shoe size (type, yes).

Finally, neither scale explicitly excludes or includes social identity or social groups as a focus of self-attention. It seems reasonable to suggest, therefore, that privately self-conscious people may become more conscious of their various identifications as each becomes salient. Social identity may provide a stronger motivation for behaviour to the extent that it is a salient aspect of self to the self. In contrast, a social categorisation may be salient to others, and under such conditions it is likely that public self-focus will increase the extent to which behaviour is organised around that self-image. This reduces to the proposition that a social categorisation can motivate behaviour both (i) through its meaning for the self, and

(ii) through the meaning it is assumed to hold for others.

CONCLUSIONS

This chapter has assessed the SCS, and two derivatives, both empirically and theoretically. It was argued that evidence for the validity and reliability of the SCS using British subjects was lacking. Prior to using the SCS as a research implement it was felt necessary to confirm its factor structure using British subjects. Data were collected both prior to and in the course of conducting experimental work. These were assessed in the light of possible doubts as to the discriminant and construct validity, and the generalisability (across subject groups) of the SCS. It was pointed out that sex and age differences in responding had received little attention in previous studies. Another problem was the glaring omission of extroversion/introversion and stability/neuroticism as potential correlates of self-consciousness in earlier studies. Finally, test-retest correlations and inter-subscale correlations have rarely been reported in the past.

Five samples of undergraduate students, two of sixth form students, one of lower secondary school pupils and one of fourth form primary school pupils all completed versions of the SCS. 894 different subjects participated in all.

Responses were entered into confirmatory factor analyses. These tended to reproduce the 3-factor structure of the SCS in most cases. In line with the findings of Heinemann (1983) items 3 and 7 of the Private self-consciousness subscale seemed to load unreliably on the 'private' factor.

Exploratory factor analyses of adult and sixth form subjects consistently yielded good replications of the Social Anxiety subscale. The Public scale seemed to divide into strong and weak items, but was

generally reproduced quite well. The Private subscale typically yielded 3 dimensions, consistent with those used by Fenigstein et al. (1975) when originally constructing the SCS. It is likely that these are subcategories of general private self-focus.

Inter-subscale correlations were found to be concordant with those found by other researchers - Public and Private Self-consciousness correlating at r = .33. Both of these subscales correlated moderately with Neuroticism, and the former correlated moderately with Extroversion. Nevertheless, they were considered to be distinguishable constructs. In contrast, Social Anxiety (the subscale with the most robust factor structure) correlated highly with Extroversion, Neuroticism and Self-Esteem, indicating that it may not have sufficient discriminant validity for further consideration. Internal reliability coefficients for the subscales tended to echo the coherence of their factor loadings; Social Anxiety and Public being more reliable than Private. Test-retest reliability was reasonable for Social Anxiety, but rather weak for Public and Private.

There was a slight tendency (across samples) for females to score higher on Public self-consciousness than did males. This was not based on differential responses to any specific item within that subscale.

The data obtained from children represented explorations in new territory for self-consciousness research. Even exploratory factor analyses produced recognisable private and public factors whose reliability coefficients ranged from .48 to .66. These results are encouraging and interesting. It is speculated that the predominance of the 'private' factor among 11 year olds,but of a 'public' factor among 13-14 year olds, may reflect a shift from egocentric to socialised forms of self-awareness. In general these data provide the possibility of developing a more coherent and reliable self-awareness scale for children.

Finally, the historical and empirical basis of the private/public distinction has given it a powerful place in social psychology. However, several weaknesses become obvious when the operationalisation of the distinction is assessed (i) in relation to similar alternatives and (ii) in relation to social identification. The data reported above would seem to allow moderate confidence in the use of the SCS as a method of assessing dispositional self-attention. The relation between self-focus and intergroup behaviour and social identity has yet to be assessed. The remainder of this thesis is directed towards that issue.

NOTES

1. Throughout this thesis the generic terms will be 'self-focus' or 'self-attention', while 'self-awareness' and 'self-consciousness' will refer specifically to the situational and dispositional antecedents of the state of self-focus, respectively.

2. The earliest formulation of self-awareness theory (Duval and Wicklund, 1972; Ickes, Wicklund and Ferris, 1973) posited that self-attention should depress self-esteem since it involved an aversive self-evaluative state. Of course, from the Turner et al. data it is impossible to ascertain the direction of causality between self-esteem and self-consciousness.

3. When reporting eigenvalues and variances accounted for, the exploratory factor analysis tables indicate the appropriate figures. The three factors retained in the confirmatory analyses are regarded as representing 100% of the variance (although they actually represent the same percentage as the first 3 factors of the exploratory analyses).

4. Gorsuch (1974) suggests that the ideal minimum number of subjects should be five times the number of dependent variables entered into a factor analysis. Therefore the ideal minimum number when analysing the SCS would be 135. Only one undergraduate sample was as large as this, the others all being under 78. The possibility of combining the smaller samples was considered, but was rejected on the grounds that each sample completed the SCS at different times (and sometimes different places). The factor analyses of these smaller subject groups should therefore be considered to be rather conservative tests of the reliability of the SCS.

5. This variation seems to have had no impact on responses, although the mean scores for each subscale are lower because of the reduced scale. Since this aspect of the presentation of the SCS is not theoretically relevant, it will not be given any further consideration.

6. For theoretical reasons relating to the experiment it was felt necessary to tap 'group affiliativeness' in addition to self-consciousness.

7. Confirmatory factor analyses were performed on these data, and are presented in Appendix A6. However, the principal approach here was exploratory, and hence only the exploratory analyses are discussed in this chapter.

8. Since the data from BOYCOLLEGE are based on a very small n (44) producing 4 factors they will not be discussed in detail. Essentially, there were overlaps between subscales such that a private and public factor, a private and social anxiety factor and a public and social anxiety factor emerged. There were high correlations between factors (see Appendix A7).

9. Correlations are presented here for subscale scores. However, correlations between factors from confirmatory oblique factor analyses are also available, and are presented in Appendix A10. The private and public factors tend to correlate at about r = .3, in line both with Fenigstein et al.'s (1975) and Heinemann's (1983) results.

10. The alpha statistic therefore provides an index of the coherence of a scale where $\alpha = 0$ represents no coherence and $\alpha = 1.0$ represents maximum coherence. In fact, Cronbach (1951) does not give any guidance as to the ideal or criterion level of reliability needed for a given scale tobe deemed acceptable.

11. Doubts about the validity of the SMs do seem to have been corroborated by factor analytic studies, which revealed that the SMs can be broken down into at least 3 (Briggs, Cheek and Buss, 1980; Gabrenya and Arkin, 1980) factors. These include acting ability, social anxiety and other-directedness and speaking ability. Scheier and Carver are keen to point out that claims that high SMs adopt self-presentation, whereas low SMs do not, cannot be confirmed since it is unclear whether low SMs' behaviour is due to the absence of public self-consciousness; the presence of private self-consciousness; or both.

12. Wicklund and Gollwitzer's (1983, in submission) paper articulates the problems raised by continually introducing additional dimensions when explaining behaviour. Wicklund's principal point is that it is not feasible for an individual to respond to very many discrete influences; phenomenologically there is only one situation and one set of processes. It would be possible, empirically, to divide people into 'standard adherers' versus 'standard ignorers'; self-focus 'avoiders' versus 'non-avoiders', as well as into high/low public and private self-conscious. The problem with this, argue Wicklund and Gollwitzer, is that it 'replaces the person's essences, motivations, shifting focus of attention, and other processes with the simple category names ... the person is not viewed as having dynamic properties' (p. 47).

    The other main consequence of dividing subjects into categories of person is that it produces a greatly complicated experimental design, in which almost a different theory is needed to explain the behaviour of each category of person. In the present research this is a real danger and, indeed, a source of potential ambiguity when interpreting results.

CHAPTER 5

SELF-AWARENESS AND ORIENTATION TO SEX, AGE AND SCHOOL CLASS GROUPS AMONG CHILDREN

The purpose of this chapter is to describe the initial phase of research designed to tackle the question of what impact of self-awareness has on intergroup behaviour. This phase incorporated three exploratory studies: one interview study and two experiments. These were designed with a view to testing the hypothesis that self-awareness would increase commitment to social identity, and that this would be reflected in increased ingroup bias. However, at the wide end of the funnel through which ideas become hypotheses, it was also important to understand some developmental aspects of both self-awareness and intergroup behaviour. These initial studies, then, were designed to establish the boundaries or parameters within which the main hypotheses under consideration could be tested[1].

Self-awareness and social identity

The most important question is whether there is any point of contact between the two models of self-concept and behaviour offered by social identity theory and self-awareness theory. Answering this question requires that the two approaches be reconciled or integrated at two levels: the theoretical and the methodological. Since the theoretical concerns have already been discussed at length there is no need to repeat them. The methodological problems are considerable. There has been only one experiment which tried to demonstrate that a group-related part of identity can be accessed by self-awareness (Carver and Humphries, 1981). That experiment revealed that greater public self-consciousness was associated with greater rejection of the attitudes of a negative reference group. The behaviour involved self versus

outgroup comparison, but not necessarily intergroup comparison or social identity.

It has been shown that self-awareness manipulations can increase idiosyncratic self-description (Geller and Shaver, 1976) and individualistic self-orientation (Carver and Scheier, 1978), although in one case (Jonassen, 1979) categorical self-descriptions were increased. Such research suggests that self-awareness may only gravitate towards rather conscious aspects of the self-concept. These conscious aspects may include attitudes or states which are under threat and review but may not include stable and enduring category memberships. These may form the boundaries of the self, and may shape one's perceptions (Markus, 1977),but may not be consciously recognised as a part of the self.

Following such considerations, it seems sensible to try to explore the nature and presence of categories in the self-concepts of the subjects to be used in experiments. Given that it is intended to use children as subjects, three questions present themselves. First, at what ages and to what extent will children invoke social categories as part of self-description? Second, which categories are most salient? And, third, when can children take 'objective' perspectives of themselves (cf. Piaget, 1965; Elkind, 1967)? This final question is important because it could be argued that self-awareness can only effect a change in behaviour to the extent that the individual concerned takes the perspective (or standard) of the other (Cooley, 1902; Mead, 1934). This idea seems plausible for social behaviour (Wicklund, 1980), although some aspects of behaviour seem to be influenced by attention to non-social aspects of self (Carver, Blaney and Scheier, 1979a). The first study was conducted to shed light on these issues[2]. Only the results relevant to this thesis will be reported.

STUDY 1: METHOD

Subjects

Children of three age groups (5, 7, 11) at a primary school in Kent (49 male and 44 female) served as subjects. The design is shown below, with number of subjects in each cell given. The study was conducted during the spring term of 1981.

	AGE	5	7	11	Total
SEX	Male	18	16	15	49
	Female	13	16	15	44
	Total	31	32	30	93

Procedure

Each child was asked by the teacher to see the experimenter (Abrams) by his table at the back of the classroom. The experimenter was already familiar to the child, having spent two days in the classrooms prior to the experimental session. Each child was then asked a sequence of four questions in invariant order. The child was prompted to provide as many answers to each question as he or she could think of. The experimenter began by pointing out a same sex peer in the room, who was known to the subject. The following four questions were then asked:

i) 'Can you see "x" (same sex peer's name)? Well, I'd like you to tell me some ways that you are the same as x ... some ways that you are like x and x is like you ... (waits for answer). Can you think of any more? (etc.)'

ii) 'That was fine. Now I'd like you to tell me some ways that you are different from x ... some things about you and x which are different ... (waits for answer). Can you think of any more? (etc.)'

iii) 'That was good. Now I'd like you to tell me what you are like ... Tell me about yourself ... (waits for answer). Can you think of any more? (etc.)'

iv) 'That was interesting. Now then, suppose that I was walking down the street one day, and I bumped into your Mummy. We started talking and then I said to your Mummy: "Tell me about 'y' (subject's name." What do you think she might tell me? What would she say? ... (waits for answer). Can you think of any more? (etc.)'

The experimenter wrote down every answer given by each child to each question. Finally, the child was thanked, and was asked not to talk to anyone about what he or she had been asked, until after school. One day was taken to question each age group.

To summarise: open-ended questions concerning similarities and differences from peers; self-descriptions; and mothers' (i.e. other perspective) descriptions, were asked of boys and girls aged 5, 7 and 11.

RESULTS

The answers given by the children were coded in terms of their references to the characteristics described below. These include 12 features under four general headings[3]:

Heading	Features
Physical	Clothes Appearance
Social Categories	Sex Age School Class Other (Friendship, Team, etc.)
Behavioural	Skills Activities
Idiosyncratic/Personal	Intellect Preferences (likes and dislikes) Dispositions (and Traits) Possessions Miscellaneous

A total of 728 separate responses was elicited (mean of 7.7 per subject). The mean number of answers given to each question increased with age

(1.27, 1.99, 2.68 for 5, 7 and 11 year olds, respectively). However, the increasing quantity of answers was not uniform across all response types. As shown in Table 5.1, only Behavioural and Idiosyncratic references increased significantly with age; notably activities, preferences and dispositions (all ps < .01). Mention of clothes and appearance peaked among seven year olds. The heading of particular interest, however, is Social Categories. Here, although the general reference to all categories did not increase significantly with age, references to sex and school class in particular did increase significantly. While almost 50% of 11 year olds mentioned their sex and school class (compared to 7% of 5 year olds), this is put in perspective by the finding that 90% of 11 year olds and 57% of 5 year olds mentioned activities such as playing, sports or writing. Thus it looks as if sex and school class gain increasing salience with age, but that self-reference in terms of lower level characteristics and behaviours is still a dominant response.

Table 5.1

Frequency of response types by age

Response Type	Age of Subjects 5	7	11	χ^2
PHYSICAL	26	29	26	0.57
Clothes	17	20	7	10.22**
Appearance	22	24	25	5.16
BEHAVIOUR	17	23	27	8.18*
Skills	1	3	8	7.48*
Activities	17	22	27	8.18*
SOCIAL CATEGORIES	14	17	21	3.47
Sex	2	9	12	10.89*
Age	7	3	4	1.90
School Class	0	3	13	23.17***
Miscellaneous	6	9	6	1.10
IDIOSYNCRATIC/PERSONAL	18	28	30	16.95***
Abilities	1	9	9	7.77*
Preferences	5	8	24	29.90*
Dispositions	8	15	23	14.93***
Posesssions	7	12	8	2.18
Miscellaneous	5	0	2	7.48*

* $p < .05$
** $p < .01$
*** $p < .001$

(Over 80% of subjects across all age groups referred to appearance, while 70% of 11 year olds and 25% of 5 year olds referred to dispositions and traits.)

The second issue of relevance is the degree of perspective taking ability of each age group. Table 5.2 illustrates that, while 11 year olds could only manage 30% more answers than 5 year olds and 15% more than 7 year olds for the Similarity and Difference questions, they managed more than triple (+200%) the number of answers given by 5 year olds and 30% more than 7 year olds on Self-description questions. A large effect was also obtained on the Mothers' description questions. Most of the 5 year olds were unable to answer this question (mean number of answers = 0.1). While not all 7 year olds answered it (mean number of answers = 0.7), most 11 year olds were able to provide at least one answer (mean number of answers = 1.5).

Table 5.2

Mean number of responses to each question by age (df = 2.90)

Question	Age 5	7	11	(Total)	ANOVA MS	MSe	F
Similarity	2.03	2.50	3.00	2.50	7.14	1.61	4.43*
Difference	1.87	2.50	2.93	2.43	8.72	1.50	5.80**
Self-description	1.03	2.28	3.20	2.16	36.17	1.42	25.39***
Mother's perspective	0.098	0.69	1.53	0.76	15.87	0.40	17.62***

* $p < .05$
** $p < .01$
*** $p < .001$

A MANOVA performed on number of responses to each question type revealed only a significant effect of age (not of sex or age x sex): $F_{2,90} = 6.61$, $p < .001$. The effects were stronger for self-descriptions and Mother descriptions - both ps < .001 - than for

Differences ($p < .01$) or Similarities ($p < .05$). These data reveal that not only do 11 year olds invoke social categories more than do younger children, but that they are also capable of taking others' perspectives to a greater extent. On the basis of these results it was decided that 11 year old children from the same school would be suitable as subjects for experiments involving intergroup behaviour and self-awareness manipulations. In addition to producing interesting results this study provided the categories to be used for comparisons and the items to be used as dependent measures in the two experiments which follow.

STUDY 2 (Experiments 1 and 2)

Having established the kinds of categories and the range of attributes which 11 year olds spontaneously produce (and are therefore conscious of) there remain the problems of setting up the intergroup situation and of inducing self-awareness. Both of the self-awareness experiments involving groups (Carver and Humphries, 1981; Wicklund and Duval, 1971) have led to the conclusion that, since groups are 'social', their impact on behaviour is more susceptible to variations in public self-attention than to variations in private self-attention. Wicklund and Duval (1971) manipulated self-attention using an own voice feedback condition, while Carver and Humphries (1981) found that the effects obtained among high public self-conscious subjects were not replicated by a video camera manipulation. In line with that thinking, the following experiments were designed to produce public rather than private self-awareness, in the hope of testing the hypothesis that increased public self-awareness will produce increased ingroup bias. Note that there are good theoretical reasons why private self-focus should increase ingroup bias (see

Chapters 1, 3 and 4). The experiments reported in this chapter, however, only address the hypotheses derived from the Carver and Humphries (1981), and Wicklund and Duval (1971, Experiment 1) studies.

The use of children as subjects deserves a brief mention. Most self-awareness research has used students as subjects. However, given that self-awareness is purported to be a universal social psychological process it should produce replicable effects in different populations. Earlier research (Abrams, M.Sc. thesis) failed to reveal any developmental differences between the responses of 5 and 9 year olds when selecting prizes of varying social appropriateness under self-awareness inducing conditions. For the present experiments the data from Study 1 suggest that 11 year old children are a more suitable subject group. There are other data (Beaman et al., 1979) which show self-awareness manipulations to be effective from around the age of 8. Together with the 'Mothers' Perspective' data from Study 1, there seems no reason to doubt that 11 year olds are responsive to self-awareness manipulations. There is also evidence that ingroup biases are expressed even among 7 year olds (Milner, 1975). Again, with the category-use data from Study 1, it seems reasonable to assume that 11 year olds are both capable of, and likely to be, making inter-category social comparisons.

It was decided that public self-awareness be induced by the presence of an audience and a large mirror (cf. Buss, 1980). Furthermore, subjects were asked to provide information about public aspects of themselves (observable features) which may also have encouraged looking in the mirror. In combination with being involved in a task which entailed evaluating own and other groups it was thought that these manipulations would be sufficiently powerful to ensure that any self-awareness that did occur would dwell on the public rather than

the private aspects of self.

Overview

Having ascertained the salient attributes of different groups from Study 1, the two experiments comprising Study 2 were conducted in order to discover what influences public self-awareness has on intergroup differentiation. The first experiment, which follows a typical intergroup paradigm (in-out ratings), asked subjects to rate the strength with which they agreed with statements of varying favourability towards three types of in and out group: own and other sex; own and younger aged; and own and different school class (same year) children. The hypothesis under test was that subjects in a condition which induced public self-awareness would show relatively more ingroup bias than would subjects in an anonymous Control condition.

The second experiment followed the design of Carver and Humphries (1981) and Wicklund and Duval (1971) more closely. Only the statements referring to subjects' own sex were used. However, these were reported as quotes from members of the opposite sex (a negative reference group). The hypothesis was that Public Self-awareness condition subjects would reject all statements (irrespective of favourability of the statement) more than would Control condition subjects. In both experiments the time taken by subjects to complete the items was recorded. It has been observed, elsewhere, that self-awareness often speeds up (or makes more efficient) performance of tasks, and that this measure therefore constitutes a useful manipulation check (Duval, Wicklund and Fine, 1972; Gibbons and Wicklund, 1976; Steenbarger and Aderman, 1979; Wicklund and Duval, 1971, Experiment 1).

Experiments 1 and 2 were conducted during the summer term of 1981.

EXPERIMENT 1: METHOD

Subjects

40 subjects (20 of each sex) participated in this experiment. Drawn from a primary school in a town in the south of England, all were between 10½ and 11½ years of age.

Apparatus

In the self-aware (SA) condition a 60 cm. x 45 cm. mirror was placed 1 metre from the subject and was propped up at the end of the desk against a wall. Every subject was also provided with a booklet containing Lickert scale attitude statements with which he or she was asked to express the strength of agreement (1 - 'strongly agree' to 5 - 'strongly disagree'). Subjects were also requested to provide biographical information about themselves. All instructions were printed in the booklet (see Appendix B1). Pens were also provided.

General Design

There were 2 conditions (Control/SA) and 10 males and 10 females were randomly assigned to each. Thus, a 2 x 2 design was created (Condition x Sex). In the booklets, seven characteristics were attributed to each of six stimulus groups (boys, girls, younger than self, same age as self, different school class, own school class). The 7 items were presented in random order on a different sheet for each of the six groups, and the sheets were randomly ordered in each booklet. In the SA condition, subjects were requested to provide information about their physical characteristics (hair and eye colour, etc.), skills (ability to swim, etc.), sex, name and age at the top of each sheet in the booklet. Control subjects only filled in these biographical items (the same number) after completing the rating scales,

on the last sheet of the booklet. The dependent measures were ratings of strength of agreement, that members of the six groups are 'friendly', 'naughty', 'bad at sport', 'well behaved','good at writing', 'untidy' and 'short'. These items were drawn from Study 1, which established which characteristics the children at this school used most frequently in describing one another. As stated earlier, the main hypothesis was that the self-awareness manipulation would make subjects' ingroups more salient as a source of identity and thus lead to an increase in the degree to which they differentiated between ingroup and outgroup members. A secondary hypothesis was that self-focus would motivate subjects to complete the items more rapidly. This was tested by recording the amount of time (in seconds) taken by each subject to complete his or her booklet.

Procedure

Subjects were randomly selected from their class registers and they individually accompanied the (male) experimenter to the experimental room. During this period they were asked if they had any foreknowledge of the nature of the experiment (none had). The subject was invited to take a seat at the end of the table and the experimenter sat on a chair next to him or her while explaining what he or she would be doing. In both conditions subjects were shown how to use the 5-point scale and were instructed to fill in the items on the following pages of the booklet without missing any of them out. It was stressed that there were no 'correct' answers but that it was the extent of their agreement or disagreement with each statement which was important. Subjects were also told to 'try to do them fairly quickly, but do not rush'.

Control condition subjects were reminded not to forget to fill in the information requested on the final page of the booklet after

on the last sheet of the booklet. The dependent measures were ratings of strength of agreement, that members of the six groups are 'friendly', 'naughty', 'bad at sport', 'well behaved','good at writing', 'untidy' and 'short'[6]. These items were drawn from Study 1, which established which characteristics the children at this school used most frequently in describing one another. As stated earlier, the main hypothesis was that the self-awareness manipulation would make subjects' ingroups more salient as a source of identity and thus lead to an increase in the degree to which they differentiated between ingroup and outgroup members. A secondary hypothesis was that self-focus would motivate subjects to complete the items more rapidly. This was tested by recording the amount of time (in seconds) taken by each subject to complete his or her booklet.

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Control condition subjects were reminded not to forget to fill in the information requested on the final page of the booklet after

they had completed the rest. After reading out the instructions the experimenter left the room to allow the Control condition subject to complete the booklet on his or her own. Subjects were instructed in their booklets to call the experimenter as soon as they had finished.

SA condition subjects sat facing a large mirror, which was propped up at the end of the table. Attached to the mirror was a note, signed by the headmaster, which read 'Please do not remove this mirror'. In addition to this the front page of the booklet required subjects to fill in their name, age, sex, date of birth and class teacher's name. This was all supervised by the experimenter, who remained in his seat throughout the SA condition[4].

In summary: Control condition subjects remained anonymous and alone with no recognised self-focusing cues, while SA condition subjects were identified to the experimenter from the outset, were repeatedly asked to provide information about their public selves and sat in front of a large mirror in the presence of the non-evaluative experimenter (cf. Buss, 1980) as they filled in the booklet of items. On completion of the experiment subjects were quizzed about any suspicions they had, whether they felt that there was anything strange about the task, if they had enjoyed it, how difficult they found it, and so on. All subjects seemed to have taken the task seriously and had been quite engaged by it. They were asked not to talk about the experiment to other children until everyone else had also done it, in three days' time. When the experiment was completed a brief account of the rationale and results was circulated to all teachers who had been of assistance and the children were debriefed in their classrooms.

RESULTS

The hypothesis that self-awareness would increase ingroup bias was

not supported. The data were inspected in three ways. First, a general bias score for each of the three in/out group pairs was calculated by summing the differences between ratings of in- versus outgroup members on each of the seven items (see Table 5.3, below). Second, ratings of individual items (e.g. 'girls are naughty') were inspected. Third, repeated measures analyses were performed on ratings of ingroup and outgroup members on the same item (e.g. 'girls are naughty' versus 'boys are naughty'). All analyses were 2 way (Condition x Sex) ANOVAs.

Comparison of the general bias scores in both conditions revealed that the degree of bias differed between comparison groups. Age-group biases were significantly greater than sex-group biases ($t_{39} = 3.72$, $p < .001$) and than class-group biases ($t_{39} = 6.60$, $p < .001$). Sex group biases also exceeded class biases ($t_{39} = 2.72$, $p < .01$). All of these differences remained significant within the SA and Control conditions (ps $< .05$), with the exception of sex group-class group differences (ps $< .08$ in both conditions). It was therefore considered appropriate to conduct subsequent analyses separately for each of the three groups since these differences may reflect different degrees of salience of differentiating between the types of group (see Table 5.3).

Table 5.3

General bias score: means by Sex and by Condition

	Males	Females	Control	SA	Total
Difference measures					
SEX	$+0.85^{a}$	$+3.55^{b}$	2.50^{A}	1.90^{A}	2.20^{α}
AGE	$+5.00^{b}$	$+4.15^{b}$	5.00^{B}	4.15^{B}	4.55^{β}
CLASS	-0.15^{ac}	$+1.20^{c}$	0.65^{AC}	0.40^{AC}	0.53^{γ}

Means sharing a subscript are not significantly different. Those with different subscripts (within letter type) are significantly different ($p < .05$).

Sex group bias

General bias scores did not differ between conditions. However, the degree of bias shown by males and by females did differ significantly ($F_{1,36} = 4.73$, $p < .05$) (see Table 5.3). This finding remained significant within the SA condition ($t_{18} = 2.13$, $p < .05$) but not within the Control condition. Although the hypothesis predicted exaggerated effects due to self-awareness, inspection of the means shows that both males' and females' sex bias had decreased (non-significantly) in the Self-Aware condition. The fact that the sex difference was exaggerated within the SA condition was because of the greater decrease among males (0.9) than among females (0.3). This is quite contrary to the effects predicted on the basis of self-awareness theory (see Table 5.4 below, and also Appendix B2).

Table 5.4

Sex bias score: means by Sex and Condition

Sex of subject	Condition	
	Control	SA
MALE	1.30	0.40[a]
FEMALE	3.70	3.40

a: This cell mean is significantly different from the others ($p < .05$).

Analyses of items revealed one significant effect for condition. Control condition subjects rated boys as less 'bad at sport' ($\bar{x} = 4.35$) than did SA condition subjects ($\bar{x} = 3.7$), $F_{1,36} = 6.82$, $p < .02$). Several main effects occurred for sex. Males rated boys as friendlier ($F_{1,36} = 8.31$, $p < .01$), less naughty ($F_{1,36} = 4.71$, $p < .05$), less untidy ($F_{1,36} = 4.62$, $p < .05$) and more well behaved ($F_{1,36} = 6.04$, $p < .02$) than females did. This contrasts with ratings of girls, where the only significant sex difference was that males rated them as being 'better at writing' ($F_{1,36} = 4.21$, $p < .05$) than females did (see Table 5.5). Inspection

of the means revealed that these effects were due to the positivity shown by males towards girls and the negativity shown by females towards boys. One Sex x Condition interaction was significant. Female Controls ($\bar{x}$ = 3.4) and male SA subjects ($\bar{x}$ = 3.4) were less opposed to the statement 'girls are short' than were male Controls ($\bar{x}$ = 3.9) and female SA subjects ($\bar{x}$ = 4.0), $F_{1,36} = 6.15$, $p < .02$. To summarise: the main effect of Condition (above) which in any case should only have occurred among females did not provide support for the hypothesis. However, the interaction does. As predicted, self-awareness heightened the positivity of females and reduced the positivity shown by males when rating an item about girls.

Table 5.5

Mean ratings of boys and girls by male and female subjects (1 = strongly agree, 5 = strongly disagree)

Sex of Subject	Males		Females	
Group being rated	Boys	Girls	Boys	Girls
Item				
Friendly	2.3	2.4	3.1	2.2
Naughty	3.2	3.2	2.6	3.3
Well behaved	2.7	2.9	3.4	2.4
Bad at sport	4.1	3.2	4.1	3.9
Good at writing	2.7	2.2	3.1	2.6
Untidy	3.7	3.6	3.0	3.5
Short	3.8	3.6	3.8	3.7

Repeated measures analyses revealed significant effects for measures and for Sex x measures (bias in opposing directions due to sex) on all items apart from 'untidy', 'good at writing' and 'short'. However, female biases were responsible for these effects. The only significant bias shown by male Controls was in rating boys as better

at sport than girls (t_9 = 2.4, $p < .05$). Self-awareness theory would predict an exaggeration of this effect in the SA condition. In fact, the only significant bias shown by SA males was that they rated girls as better at writing than boys (t_9 = 2.71, $p < .05$). Among females, Control subjects rated girls as less naughty (t_9 = 3.97, $p < .01$), better behaved (t_9 = 3.55, $p < .01$) and friendlier (t_9 = 2.54, $p < .05$) than boys. Female SA subjects only showed significant bias on the friendly item ($p < .05$). These results are important because they are counter to the predictions made from self-awareness theory that the tendency towards ingroup bias will be exaggerated under self-focusing conditions (see Appendix B3).

Age group bias

No general bias score effects were obtained for Condition. It is interesting to note that, while age and sex bias levels do not differ for females, age biases are significantly stronger than sex biases (see Table 5.3) (t_{19} = 4.62, $p < .001$) for males.

Analysis of items revealed one near significant main effect for Condition. Control condition subjects disagreed more strongly ($\bar{x}$ = 3.55) than SA condition subjects ($\bar{x}$ = 3.1) that children of their own age were naughty ($F_{1,36}$ = 3.63, $p < .07$) - contrary to the predictions from self-awareness theory. Furthermore, one Sex x Condition interaction was significant. Agreement that younger children are 'short' was less strong among female Controls ($\bar{x}$ = 2.7) and male SA subjects ($\bar{x}$ = 3.3) than among male Controls ($\bar{x}$ = 2.3) and female SA subjects ($\bar{x}$ = 1.9), $F_{1,36}$ = 6.18, $p < .05$. This interaction follows the same pattern as that for ratings of girls as short. However, in this case the ingroup/outgroup explanation does not make sense - only the females' behaviour fits in with

self-awareness predictions. Males' behaviour was the opposite of that predicted.

The repeated measures analysis revealed significant effects for measures on all items except 'friendly'. This pattern was clear in the control Condition but was attenuated in the SA condition, where 'untidy', 'well behaved' and 'naughty' also failed to attain significance. As with the sex group items, the age group biases appear not to have been increased by self-awareness. If anything, the opposite tendency occurred (see Appendix B3).

Class group bias

Of the general bias scores these were the lowest (differing significantly from sex and age biases among females and from age biases among males). There were no significant main effects for condition or sex. However, it is interesting to note that male Control subjects displayed a very small degree of outgroup bias (see Table 5.3).

Analyses of items revealed no significant effects.

Repeated measures analyses revealed that only 'short' and 'bad at sport' were rated differently for own versus other class members. A significant Sex x measure interaction was obtained on the 'bad at sport' item. Males were more favourable towards other class than females were but less favourable to own class than females were ($F_{1,36} = 4.05$, $p < .05$). In other words, females expressed more ingroup (class) bias on this item. A significant Sex x Condition interaction occurred on ratings of own versus other class at being 'good at writing'. Male Control and female SA condition subjects rated other class as better than own. Male SA and female Control condition subjects rated own class as better than other ($F_{1,36} = 4.57$, $p < .05$). This interaction is in the opposite direction to the two (item analyses on sex and age

groups) reported above and cannot readily be theoretically interpreted (see Appendix B3).

In summary: while differentiation between groups, in the form of ingroup biases, did quite clearly occur, it seems that this tendency was, if anything, attenuated by the presence of self-focusing stimuli. No support was found for the prediction that self-awareness would increase ingroup bias due to increased attention to social identity. It cannot be argued that either floor or ceiling effects prevented the Self-Awareness condition from increasing bias. The range of scores available was 1 to 5 on each item. Since most of the mean scores fell between 2 and 4 and the variances ranged from 0.5 to 1.5 (in general) it seems that subjects were not restricted by the scales to such an extent that they could not have made their ratings more extreme. Nor did this use of the scales prevent significant levels of intergroup differentiation from occurring. If the degree of differentiation which occurred had done so only in the Self-Aware condition the hypothesis would have received a measure of support.

Self-awareness theory bases its predictions on the focus of a person's attention and the salience of different aspects of self at the time. The present experiment may have demanded too much task focus at the expense of self-focus. Also, rating six groups (3 ingroups, 3 outgroups) may have prevented any particular social identification from becoming prominent enough to gain the degree of salience (relative to other aspects of self) necessary for it to affect behaviour (cf. Deschamps and Doise, 1978). With these possibilities in mind, the second experiment was designed and conducted.

Previous research (e.g. Brown and Ross, 1982; Carver and Humphries, 1981) has found that citing the outgroup as the source of statements increases rejection of those statements by ingroup members. Such a

procedure should increase the salience of differentiating between ingroup and outgroup. Under self-focusing conditions negative statements about ingroup members should be rejected more strongly and positive ones accepted less readily than would be the case in a Control condition. For Experiment 2 the categories used were sex groups. The experiment was designed and conducted in a similar way to Experiment 1, but greatly reduced the stimulus load on subjects.

EXPERIMENT 2: METHOD

Subjects

An additional 40 subjects (20 male, 20 female) from the same school and of the same age group as those in Experiment 1 participated. Since the two experiments were run at the same time, subjects had no prior knowledge of the procedure.

Apparatus

The apparatus was the same as was used in Experiment 1, with the exception that the dependent measure booklet contained only the statements about the sex group to which the subjects belonged.

Design and Procedure

The seven characteristics used in Experiment 1 were attributed to the subjects' own sex group, ostensibly by members of the opposite sex group. The Self-Aware (SA) condition subjects were asked to fill in their name, age, sex, date of birth and class teacher's name on the front page of the booklet. On the page containing the stimulus statements, they were asked to give their name, age and sex again, and also their hair colour. The experimenter and the mirror were also present, as before.

In the Control condition the biographical information was not requested until the page after the dependent measure statements, and the mirror and experimenter were absent from the room. The time (in seconds) taken to complete the booklet was recorded as in Experiment 1. For the purposes of distinguishing between the conditions in the two experiments, those from Experiment 2 will be called Control + Reference Group (CRG) and SA + Reference Group (SARG) from now on.

RESULTS[6]

The 2 way ANOVA (Sex x Condition) revealed four significant main effects of Sex (see Table 5.6). Females rejected the 'naughty' statement more than males did ($F_{1,36} = 10.02$, $p < .01$), rejected the 'untidy' statement more than males did ($F_{1,36} = 7.01$, $p < .05$), accepted the 'well behaved' statement more than males did ($F_{1,36} = 6.16$, $p < .05$) and accepted the 'good at writing' statement more than males did ($F_{1,36} = 4.17$, $p < .05$).

Table 5.6

Mean ratings of own sex group on each item by males and females

	ITEM						
	Friendly	Naughty	Well behaved	Bad at sport	Good at writing	Untidy	Short
SEX							
Male	2.60	2.85	3.10	4.40	2.75	3.00	4.10
Female	2.55	3.65	2.60	4.15	2.30	3.75	4.05
p	-	**	*	-	*	*	-

* $p < .05$
** $p < .01$

Thus, females showed more sex ingroup favourability than males - consistent with the finding from Experiment 1 that they differentiated

in favour of their own sex group more readily than males did. Looking at the pattern of the means for 'naughty', 'well behaved' and 'untidy' it appears that males were more ambivalent than females in their responses. While females were displaying behaviour more frequently associated with social identity, males displayed relatively unbiased behaviour - possibly more self-presentational in nature. It should be stressed, however, that the self-awareness manipulations appear to have had no effect on these tendencies.

It was decided that, in addition to the data from Experiment 2, the responses given for the same items by subjects from Experiment 1 could be used for comparison. Recall that, for these, it was predicted that SA subjects would be more favourable towards the ingroup than would Controls, whereas for Experiment 2 they should be more rejecting of these same statements (since the statements were made by the outgroup) than should Controls. The design for this analysis was therefore 2 (Sex) x 4 (Control, SA, Control + Reference Group, SA + Reference Group), with seven dependent measures and ten subjects per cell.

There was a main effect for Condition on the 'well behaved' item. Control subjects agreed with the statement more than did subjects in the other three conditions ($F_{3,72} = 3.24$, $p < .05$). Significant main effects for sex were found on the 'naughty' ($F_{1,72} = 5.76$, $p < .05$) and the 'well behaved' ($F_{1,72} = 5.76$, $p < .05$) items; for both of these females gave a more favourable rating of their group than males did of theirs. Planned comparisons between ratings in the two reference group conditions and the two no-reference group conditions did provide some support for the idea that rejection will be greater where a negative reference group is cited as the source of statements. CRG and SARG condition subjects agreed less that members of their own sex group were friendly ($\bar{x} = 2.57$) than did subjects in the Control and SA conditions

($\bar{x}$ = 2.20), (t_{78} = 2.43, $p < .05$). CRG subjects agreed less that they were friendly than either SA or Control condition subjects (both ts_{78} = 2.43, $p < .05$). No other significant main effects or interactions were found (see Table 5.7). This analysis showed Control and Control + Reference Group condition subjects to be more extreme (in different directions) than those in either of the Self-Aware conditions. It appears therefore that the only discernible impact of Self-Awareness conditions was an attenuation of response tendencies.

Table 5.7

Mean ratings of sex groups by Condition and Sex, using data from Experiments 1 and 2 combined (n = 80)

CONDITION	ITEM			
	Friendly $\bar{x}$	Naughty $\bar{x}$	Well behaved $\bar{x}$	Untidy $\bar{x}$
Control	2.20^{b}	3.40	2.25^{a}	3.50
Control + Reference Group	2.75^{a}	3.25	2.85^{b}	3.30
Self-aware	2.20^{b}	3.05	2.85^{b}	3.30
Self-aware + Reference Group	2.40^{ab}	3.25	2.85^{b}	3.45
Females	2.35	3.47^{a}	2.50^{α}	3.62
Males	2.43	3.00^{b}	2.90^{β}	3.30

Means with different subscripts of a type are significantly different ($p < .05$).

Manipulation check for both experiments

It could be argued that, for some reason, the self-awareness manipulations went unnoticed by the subjects in the SA conditions. There is some evidence to the contrary. First, it was observed that subjects actually did look in the mirror, both to check on the physical

characteristics being enquired about on the question sheets and also when pausing to think about an answer. Second, the recorded times taken to complete the booklets in the different conditions support the idea that self-awareness was induced by the manipulations used in the SA condition: for Experiment 1 the Control subjects took longer ($\bar{x}$ = 513 seconds) than the SA condition subjects ($\bar{x}$ = 458 seconds), $t_{38} = 1.81$, $p = .079$ (2-tailed); this was repeated in the second experiment, where Control + Reference Group subjects again took longer ($\bar{x}$ = 151 seconds) than did SA + Reference Group condition ones ($\bar{x}$ = 120 seconds), $t_{38} = 3.36$, $p < .005$. This finding is consistent with those from earlier self-awareness research (e.g. Duval, Wicklund and Fine, 1972; Liebling and Shaver, 1973; Wicklund and Duval, 1971).

DISCUSSION

Can self-awareness manipulations increase attention to, and thus the influence on behaviour of, group-related aspects of identity? From these data the initial answer appears to be 'no'. In fact, the only influence of the experimental manipulation appears to have been on the speed at which subjects worked. This implies that closer attention was paid to the task instructions than to social identity - a suggestion supported by the (generally non-significant) attenuation of intergroup differentiation under self-focus conditions. Although this alternative focus of attention can explain the present results, the problem is that there is no a priori reason for predicting the results obtained. Such a prediction would require the specification that 'speed of working' rather than group membership was the most salient. However, given the procedure (and Control condition results), such an explanation seems implausible. While it is likely that speed of working was relevant for subjects, it seems probable that group

membership was more relevant.

The results lend support to the theoretical perspective of Tajfel in so far as they have demonstrated that by making group membership salient it is possible to produce ingroup biases with little difficulty. They also concur with the finding of Carver and Humphries (1981) and others that identifying a stimulus with a negative reference group can reduce acceptance of that stimulus (e.g. males' responses in Experiment 2). The results also suggest interesting qualifications to intergroup relations research. They are concordant with those of Vaughan, Tajfel and Williams (1981) in demonstrating that ingroup biases do occur in pre-teenage children and that both ingroup favouritism, and outgroup rejection at the expense of the ingroup, may occur, depending on the nature of the groups involved[5].

A further element which may be influential in determining the degree of ingroup bias is the salience of the intergroup distinction (Turner, 1981a). The present studies, for example, amplify the point that distinctions which are important for females may not be for males. In particular, it seems that, while females sought to endorse positive attributes of their own sex group and negative attributes of boys, males did not show this tendency. Indeed, males responded somewhat positively towards females as an outgroup but were ambivalent in their reactions to girls as a reference group.

To date there has been a dearth of investigations into sex differences in intergroup relations and intergroup behaviour (see Williams, 1980, and Abrams and Condor, 1984). The present study lends some support to the finding of Dion (1979) that males exaggerate the worth of their group product (e.g. sports behaviour), while females are more concerned with discrimination in terms of interpersonal characteristics (e.g. friendliness). However, present findings are the opposite of those

from studies by Deschamps and Doise (1978) in which boys were significantly more biased in favour of their own group than girls were. Their explanation was that girls see boys as being high status and they experience a conflict 'between discrimination in favour of the ingroup and a tendency to reduce their distance from a privileged group ... on salient dimensions' (p. 153). Turner (1978a) argues that if status differences are not perceived to be legitimate this will lead to an increase in social competition and will encourage attempts to become positively distinctive. It could well be that Deschamps and Doise's Genevan children had a quite different view of the legitimacy of stereotypical status differences between the sexes than did the children in the present experiments.

Much effort has been expended (Tajfel, 1978; Tajfel and Turner, 1979; Turner,1981a) on demonstrating that the influence of social identity in (for example) the minimal group situation cannot be accounted for in terms of 'self-presentation'. Given that the 'audience' in this case was the experimenter, it seems possible that self-presentation would lead to a strategy of fairness rather than ingroup bias. It is interesting to speculate about why one or other mode of behaviour might be adopted. It may be that self-presentation is influential where the intergroup distinction is not salient for social identity and where there is little other opportunity to enhance self-esteem. In interpreting the present findings one could suggest that, while girls seized the opportunity to make themselves positively distinctive from boys, boys were more concerned to present themselves as 'good' by being fair. Since all subjects were equally (highly) discriminatory against younger children it does seem that males were selective in their response strategies rather than just being uninterested. Some further evidence for this argument is based on Carver and Humphries' (1981) assertion that

reference group behaviour is essentially 'self-presentational' in nature. They claim that, since public self-awareness is often preoccupied with self-presentation in social settings (Fenigstein, 1979) and increases rejection of a negative (acceptance of a positive) reference group's opinions, the latter phenomenon is a function of self-presentation. Following the pattern of results through from Experiment 1 to Experiment 2, it does seem that males were in less agreement on the items which were positive towards themselves than females were in Experiment 2. Females' responses remained (in accordance with social identity predictions) consistently self-favourable, suggesting that self-definition rather than self-presentation motivated their behaviour. What is remarkable is that neither of these strategies for responding was enhanced by the self-focus manipulations (see also Chapter 7).

The use of children as subjects in the present experiments deserves further comment. It was seen to be theoretically important to be able to demonstrate that a proposed universal process (self-focused attention) would occur in populations other than students. In a previous discussion (Abrams, M.Sc. thesis) it was pointed out that there might be a relationship between self-awareness and egocentrism but that the two were not mutually exclusive. It would be quite possible, for example, to attend more closely to one's own emotions rather than empathising with someone else's. In 8 year olds, and older children, egocentric tendencies should have waned and self-awareness would be expected to dwell increasingly on the public aspects of self (see Chapter 4). The population sampled in the present research (11 year olds) therefore seemed ideal in that they were more likely to be publicly self-aware in self-focus inducing circumstances than were younger children.

Further evidence that manipulations in the present studies should have been effective on this subject population comes from the fact that self-awareness manipulations (mirror) appeared to be effective in an earlier study using children (Beaman et al., 1979). Children were significantly less likely to take more sweets than told to from a Halloween trick or treat bowl if there were a mirror positioned behind it. This effect only occurred for over 8 year olds because younger children did not transgress anyway. Beaman et al. argued that mirror-induced self-awareness reminded the older children of the 'standard' of correct behaviour, resulting in reduced transgression. An alternative explanation of their results is that the mirror reminded older children that there was a strong chance of being caught (by being seen in the mirror). For younger children the strange situation would have made them reluctant to break rules in any case. The fact that older children in groups transgressed more than when alone merely supports this claim that the perceived risk of being caught,rather than self-awareness,was the main factor in that study. This is not to claim that the mirror was uninfluential; just that it may not have induced self-awareness. The manipulation check in the present studies did suggest that self-awareness effects were produced by the SA condition. On the other hand, audience-induced drive (Cottrell, 1972; Zajonc, 1965) or anxiety (Wine, 1971) may have been responsible for these results rather than self-awareness.

It could also be that, although the SA condition subjects were not very self-aware, the Control subjects were actually deindividuated - a state in some ways opposite to self-awareness (Diener, 1979; Diener et al., 1980). This results in an increase in group unity, and reduces concern over what others think of one. In the present studies a similar pattern emerged - Control subjects expressed more ingroup biases, while SA subjects resisted these,either because they were reminded of their

own individuality (through private self-awareness; cf. Carver, 1977; McCormick, 1979), or possibly because they wished to present themselves (public self) as unbiased. However, there are good reasons for rejecting such interpretations. First, although Control subjects were alone and anonymous, they were not among an equally anonymous group of others. There is no evidence to suggest that solitude is a source of deindividuation. Second, it is clear from past research that deindividuation is not necessary for enhanced group identification (Brown and Turner, 1981; Carver and Humphries, 1981; Duval, 1976; Reicher, 1982) and there is no good reason to suppose that it did in the present experiment. Finally, there is no persuasive evidence that private, rather than public, self-awareness was induced by the SA manipulation.

Another plausible alternative explanation for the pattern of results obtained here is that social identity processes were so prominent and so powerful that the imposition of self-awareness had no impact upon them. This would suggest that self-awareness manipulations are effective only where other variables are weak in their impact (cf. Scheier and Carver, 1980). Possibly, only if the attitudes, feelings and behaviours involved are not absolutely central to identity will self-focused attention affect them. This might lead one to predict that self-awareness would have greater impact where experimentally created (e.g. minimal) groups are involved than where real groups are implicated.

In conclusion, the nature of the impact of self-awareness on intergroup behaviour is still very unclear. There are times when people are obviously very aware of group identity and of group commitment (for example, when canvassing at elections or representing one's group to outgroup members), but at present it is not easy to see how standard self-awareness manipulations relate this to social self-awareness. For example, a new member of a school football team (a somewhat deindividuated

setting) would surely feel self-aware the first time the ball was passed to him. This might well affect the decisions he reached about to whom the ball should be passed, and the confidence with which the action is performed. This form of self-awareness might be quite different from that induced by isolating a player, pointing a video camera at him and asking him to display football skills.

The results of the present experiments suggest that it may be impractical merely to use conventional manipulations of self-attention when attempting to reveal the effects of focus of attention as an independent variable. The experiments which are described in the following chapters were designed so as to disentangle the impact of social identification and different forms of self-awareness on intergroup behaviour. That there is no simple relationship between the presence or absence of self-focusing stimuli and intergroup behaviour has been shown by the experiments reported in this chapter. One question which has yet to be answered, therefore, is whether focus of attention has <u>any</u> effects on such behaviour? It is to this question that we now turn.

NOTES

1. Many of the ideas and problems raised in this chapter reflect a transition of emphasis from developmental aspects of self-awareness (see Abrams, 1980, M.Sc.) to intergroup relations.

2. This study was also designed to establish developmental trends in self-description, and the results have been discussed in terms of the literature on social perspective taking (Shantz, 1974) by Mark Bennett in his Ph.D. thesis (1983).

3. These categories were derived post hoc. However, the 'Features' did adequately include the majority of responses, as can be seen from Table 5.1. The 'Headings' were derived partly on the basis of Kuhn and McPartland's (1954) analyses of Twenty Statements Test responses, and partly on the a priori interest in (i) social categories, and (ii) the use of concrete and abstract information in children's social cognitive development (cf. Tajfel, 1981, and Shantz, 1974, respectively). All responses were coded solely by myself. While the use of an independent judge would have been desirable, the responses were sufficiently unambiguous to allow reasonable confidence in the analysis of these data. This entire study has been replicated and elaborated (June 1984), with randomised order of questions, and tape-recording of responses, although these later data have not yet been examined.

4. Covert observation of Control condition subjects (through a window in the door behind their chair) revealed that it took not more than 10 seconds from the time they finished writing to their actually calling the experimenter. It was therefore decided to add 10 seconds to the times recorded for SA condition subjects in order to account for the fact that they were able to indicate that they had finished without leaving the room.

5. It is not often mentioned whether the forms of differentiation adopted by different groups differ. Two studies at least (Brewer, 1979; Dion, 1979) have shown that the patterns of ingroup biases and the dimensions on which they occur may differ as a function of status and response measure used.

6. The traits used for intergroup ratings may hold differing evaluative connotations for each group, as well as accurately being differentially applicable to each group. Therefore the focus of interest is how these ratings are affected by the Conditions and not the absolute value of the ratings.

CHAPTER 6

FOCUS OF ATTENTION AND MINIMAL INTERGROUP DISCRIMINATION

INTRODUCTION

The experiments reported in the previous chapter were methodologically consistent with those conducted by Wicklund and Duval (1971) and Carver and Humphries (1981). While having re-established the fact that children display discriminatory intergroup behaviour (cf. Milner, 1975), little evidence was found for the impact of the self-awareness manipulation (cf. Beaman et al., 1979). In Chapters 3 and 4 it was argued that there is no logical reason why attention focused on social identity should not enhance its impact on behaviour. However, it may be that the usual manipulation of self-awareness is incompatible with the 'switching on' (Turner, 1981) of social identity. Perhaps the act of isolating an individual directs any self-attention towards personal identity. If this is the case, the basic self-awareness paradigm may not be suitable as a method of investigating the effects of self-awareness on intergroup behaviour. One task in this chapter is to develop and assess alternative methodologies. Perhaps the best place to start is with the theories.

Duval and Wicklund's (1972) theory began by making a distinction between objective and subjective self-awareness. This served to separate the state where the self was being observed by itself and the state where the self was experiencing and observing the environment. The terms 'objective' and 'subjective' were later dropped (cf. Wicklund, 1975, 1980), and 'self-awareness' and 'non-self-awareness' were adopted instead. This change reflected a shift of emphasis from the social psychology of Mead (1934) to the psychology of James (1890) and Miller, Galanter and Pribram (1960). The shift culminated in Carver and Scheier's

(1981a) theory of attention and self-regulation. Together with this shift of terminology came the idea that attention was the key variable, and that self-focused attention may be a metacognitive state in which certain goals, endpoints and standards were identified more clearly. Essentially, when a particular schema is evoked our behaviour is a product of how much we attend to that schema. According to Carver and Scheier (1981a), any schema includes behavioural standards or imperatives, and it is to these which we attend when 'matching to standard' our behaviour. Recently, Carver and Scheier (1982c) have specifically referred to minimal group research:

> 'Categorising a person has an important impact on how perceivers subsequently behave towards that person. Arbitrary group assignments (i.e. the target person either is or is not a member of the subject's group) have been found to lead to reliable biases in behaviours such as the allocation of money (e.g. Billig and Tajfel, 1973; Allen and Wilder, 1975) and seeking of information about the person (Wilder and Allen, 1978) ... these effects do not simply represent secondary inferences about what the person is like. They represent acts of overt behaviour stemming from the initial categorisation. Again, this evidence appears to suggest that behavioural specification is closely linked to certain kinds of category membership judgements' (p. 250).

They continue that 'when a standard has already become salient, the matching to standard sequence (at whatever level of control is superordinate) is partially governed by the person's focus of attention' (p. 250). Unfortunately, they do not go on to make a direct prediction about focus of attention in minimal group experiments. However, it seems reasonable to assume that closer attention to one's self-definition as a category member will lead to more extreme instances of intergroup behaviour. Specifically, it may be hypothesised that this focus of attention will result in greater ingroup bias and in more consistent intergroup behaviour. This second effect, produced by greater adherence to behavioural standards, could be demonstrated by reduced variability in

behaviour towards ingroup and outgroup members.

The problem with testing these hypotheses is that manipulations such as mirror or audience presence may direct attention to (as well as making salient) only personal aspects of self. Hence it is necessary to devise an alternative method. Here it is important to have as much control over the direction of subjects' focus of attention as possible. It has been assumed that (for example) self-awareness induced by a mirror will dwell on whatever aspect of self is salient; these aspects may range from emotions to attitudes. This assumption allows for post hoc explanations which, at this stage, may only add to the uncertainty of future predictions. These considerations suggest that a method adopted by Ellis and Holmes (1982) might be more suitable. Quite simply, they told their subjects where to focus their attention. In a self-focus condition subjects were told that the experimenter was interested in 'how you view yourself ... you are being asked to be sensitive to your thoughts and feelings'. In another condition, subjects were told to 'pay particular attention to the interviewer' (p. 70). Thus focus of attention was simply manipulated 'through instructional sets' (p. 69; see also Regan and Totten, 1975; Taylor and Fiske, 1975). This method seems particularly appropriate for use with a social-categorisation paradigm since it does not involve the presence of a cue evoking stimulus which could lead attention down unforeseen and unintended paths.

Another method, still less obtrusive than that of Ellis and Holmes (1982), is to use subjects' chronic tendencies of attentional focus as an independent variable when examining intergroup behaviour. It is reasonable to assume that differences in dispositional self-consciousness reflect preferences for utilisation of different types of 'standards' when monitoring one's own behaviour. It may be that being publicly or

privately self-conscious evokes different subjective interpretations of the meaning of environmental stimuli. For example, a social categorisation may entail a sense of identity for a privately self-conscious person, but may merely suggest socially appropriate behaviours for a publicly self-conscious person. In any case, effects which result from these variables would probably be disrupted by situational manipulations of self-focus, such as mirrors or cameras. The only obvious way to test the validity of such conjectures is to pre-test subjects' dispositional self-consciousness and examine the effects of different levels of self-consciousness on behaviour.

PILOT STUDY

The rationale and experimental hypotheses for the main experiment will be spelled out below. The starting point for both the pilot and the main experiment was to select a paradigm in which subjects might be looking for anchors or standards with which to locate their intergroup behaviour. It was also important that these standards could be specified *a priori* so that predictions could be made about the effects of focus of attention. The minimal group paradigm seemed ideal for these purposes since there has been a considerable amount of research into the standards that subjects do use in that paradigm (Billig and Tajfel, 1973; St. Claire and Turner, 1982; Tajfel and Billig, 1974; Tajfel *et al.*, 1971; Turner, 1978a, 1980). There is no dispute between these researchers and Carver and Scheier (1982c). They agree that social categorisation is a cue for discriminatory intergroup behaviour.

A pilot study was designed to see whether attention could be directed to different standards within a minimal group experiment. Since the particular materials used were subsequently adopted for the main experiment, it is unnecessary to go into detail about them here.

The social categorisation manipulation was based on that of Brown and Deschamps (1981). Thirty-six 11 year old children from a primary school in West Yorkshire served as subjects. After listening to 3 pairs of musical excerpts, and expressing preferences for one piece from each pair, subjects were randomly assigned to either the Riley or Kabelac groups*. As is usual in the minimal group paradigm, subjects were then provided with booklets in which they were asked to allocate points to anonymous ingroup and outgroup members (see Turner, 1978a, for details). It was in these booklets that focus of attention was manipulated. A copy of the general instructions delivered by the experimenter is provided in Appendix C1. All 36 subjects (18 male, 18 female) were in the same room, and were each randomly allocated to one of three conditions. The instruction page on the front of the booklets differed in each condition. Following the allocation of points to an ingroup and an outgroup member on each booklet page, subjects in each of the three conditions were asked to write down information about what they did. The information requested was slightly different in each condition.

The instruction page told the subject which music he or she preferred and what number he or she was of that group. In the Standard condition the instructions conformed to those normally used in the minimal group paradigm. Subjects were told: 'This is a study about decision making ... the points do not stand for anything special. I am just interested in the way that people make decisions.' The instructions concluded: 'Thank you for taking part in this study about decision making.' On each page of the booklet subjects had to follow the points allocation by filling in some blank spaces in two sentences to indicate the amount of points they had given to each person on that page.

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* See page 222.

In a condition designed to distract attention from social categorisation (Distracted condition), subjects were asked to concentrate more on the numerical aspects of the task. They were told: 'This is a study about how people remember points and numbers ... I am just interested in the things that you remember about the points and the numbers of the people to whom you gave them.' At the bottom of the instruction page subjects were thanked for 'taking part in this study about remembering points and numbers'. On each booklet page subjects had to write down both the amount of points given and the numbers of the recipients (but not their group memberships). In a condition designed to increase attention to social categorisation (Enhanced condition), the study was said to be about 'people in different groups and what they think ... I am just interested in the Kabelac and Riley groups'. At the end of the instructions subjects were thanked for 'taking part in this study about the people in different groups and what they think'. On each page subjects had to follow the allocation of points by writing down to which group each person number belonged, and whether that group was 'mine' or the 'other' group. In all three conditions the instruction page also stated: 'I will hand out some more questions later, after everyone has finished filling in his or her booklet.' Hence the allocation of points made sense in terms of what subjects would have to do afterwards. Subjects were shown how to use the matrices by a demonstration poster. The matrices were mathematically identical to those used by Brown and Deschamps (1981) and Turner (1978a) but had only seven levels and used smaller numbers[1]. The children were assured that the study was not any kind of test. The design was 2 (Sex) x 3 (Condition) with six subjects per cell.

Pilot study results

With such a small N it was inevitable that the results would not be terribly strong. The first thing to establish was that these matrices were a suitable medium through which 11 year olds could engage in intergroup behaviour. Two versions of each of the 3 types of matrices (MD versus MIP + MJP; MJP versus MIP + MD; F versus MD + MIP)[2] were presented; the pulls on each were then averaged, giving one score for each strategy. The following were significantly greater than zero at the $p < .001$ level: MD versus MIP + MJP, MD + MIP versus F, MIP + MD versus MJP, and F versus MD + MIP. Neither of the two pulls involving MJP attained significance. These results are very similar to those obtained by Vaughan et al. (1981), with younger children (see Table 6.1 below, for means). However, there were no signifcant effects of Sex, Condition or Condition x Sex on these pulls. If any effects of Condition had occurred they should have influenced the MD, MIP and F strategies. As Table 6.1 shows, the results on these measures fell into two patterns. The MD and the MIP + MD pulls were weakest in the Standard condition and were equally strong in the Enhanced and Distracted condition. The fact that Standard condition means were always lower than Enhanced condition means suggests that the manipulation was effective in directing attention to the intergroup distinction in the Enhanced condition, although the effectiveness of the Distracted condition remains in doubt.

Table 6.1

Pilot study matrix pull score means

Condition (n)	Enhanced 12	Standard 12	Distracted 12	Total 36
MD + MIP (versus MJP)	1.83**	1.29	0.88	1.33***
MIP + MD (versus F)	1.46**	0.50	1.67*	1.21***
MD (versus MJP + MIP)	1.38*	0.92	1.50	1.26***
F (versus MIP + MD)	2.38***	1.29	1.17	1.61***
MJP (versus MD + MIP)	-0.33	-0.63	-0.42	-0.46*
MJP + MIP (versus MD)	0.25	0.33	0.50	0.36

(T-tests; asterisked means differ significantly from zero; within conditions df = 11, across conditions df = 35.)

* $p < .05$
** $p < .01$
*** $p < .001$

Table 6.2

Pilot study matrix pull between-subjects variances

	Enhanced	Standard	Distracted	Overall
MD + MIP (versus MJP)	2.96	6.04	5.91	4.75
MIP + MD (versus F)	1.66^{b}	3.82	4.88^{a}	3.52
MD (versus MJP + MIP)	2.96	6.04	5.91	4.75
F (versus MIP + MD)	3.28	7.11	8.70	6.30
MJP (versus MD + MIP)	0.79^{b}	1.55	3.40^{a}	1.82
MJP + MIP (versus MD)	3.07	5.11	2.23	3.28

a and b differ significantly (Newman-Keuls, $p < .05$; $F_{11,11} < 2.85$).

In Table 6.2 (above) the variances are presented. Here again a clear pattern emerges; lower variances in the Enhanced than in the other conditions on all but the MJP + MIP pulls. Of greater importance is the finding on the MIP + MD and MD + MIP pulls. Here the variances are greatest in the Distracted condition. On the MIP + MD *versus* F pulls the Distracted *versus* Enhanced condition variances differ significantly ($F = 2.94$, $df = 11,11$, $p < .05$). A similar finding was obtained on the MJP *versus* MD + MIP pulls ($F = 4.30$, $df = 11,11$, $p < .05$). It is presumably because of the pattern of variances that,even where Distracted condition means were higher than Enhanced condition means (Table 6.1), only the latter were significantly different from zero. In other words, almost exclusively in the Enhanced condition did subjects discriminate reliably. They were also reliably fair (cf. Turner, 1980). These data then lead to the suggestion, albeit a rather tentative one, that the attentional manipulation was moderately impactful. A slightly modified procedure might produce more reliable results.

The design and procedure of the pilot study may have been weak in some respects. Perhaps the most obvious weakness was the small number of subjects. The full experiment was designed with an N of twenty subjects per condition in order to surmount this problem. Another limitation of the pilot study was that subjects were led into the study rather briskly. The entire study took place within one room, with the teacher retiring to the back in order to 'score' subjects' preference sheets. It is possible that the attentional manipulation lacked impact because the children only had written instructions to direct their attention. It was felt that if these written manipulations were reinforced by spoken instructions their effects might be greater. For this reason each condition was conducted in isolation in the full experiment. In addition, the written instructions were simplified,

particularly in the Standard condition (where 'decision making' became 'making decisions', and 'the way people make decisions' became 'your decisions and that sort of thing'), and the Enhanced condition (where 'people in different groups' became 'people in the Kabelac and the Riley groups').

EXPERIMENT

Further theoretical considerations

An important question arises from the pilot study data: what are the sufficient conditions for intergroup discrimination? Turner's (1982) view is that 'categorisation and social comparison processes are complementary ... the former is necessary and the latter the sufficient condition for competitive intergroup differentiation' (p. 83). This model assumes that 'individuals desire positive self-esteem',and that 'one's self-esteem as a group member depends on the outcomes of social comparisons between the ingroup and the outgroup' (p. 80). The supposed power of this motivational variable led Tajfel and Turner (1979) to conclude that social categorisation per se was sufficient to produce intergroup differentiation. However, Turner (1982) acknowledges that this may depend upon the 'salience and normative relevance of the social categorisation for social behaviour' (p. 84). To summarise Turner's position: the switching on and off of a social identifiation, and hence intergroup differentiation, hinges upon the degree to which it is salient. Turner might try to explain the pilot study results by suggesting that social categorisation was rendered more salient in the Enhanced condition.

For Carver and Scheier (1981a),the behaviour-governing process is attention to particular standards. They make no motivational assumptions other than that we wish to match our behaviour to these standards. For

them, social categorisation should only lead to intergroup discrimination to the extent that one attends to a standard which specifies such behaviour. Their explanation of the pilot data would stress not the salience of the social categorisation but the reference points to which subjects attend and by which they organise their behaviour. Only in the Enhanced condition did subjects attend to standards which specified intergroup discrimination. A fusion of Turner's and Carver and Scheier's models leads to the proposition that,even when salient, social categorisation per se will not be sufficient to produce intergroup differentiation. In addition, it is necessary to attend to a competitive standard of social comparison.

At present, this proposal should be restricted to contexts such as minimal group experiments. The reason for this is that the conscious directing of behaviour tends to be most necessary when the situation or task is novel (Abrams and Manstead, 1981; Wicklund, 1980). Under such conditions we are actively seeking standards for our behaviour as a guide for self-evaluation (Scheier and Carver, 1981). It was suggested in the last chapter that real group memberships are often so well embedded in the self-concept that the act of increasing attention to them may even inhibit relatively automatic discriminatory behaviour. In contrast, the minimal group paradigm involves the acquisition of a novel self-image, with unknown parameters. It is highly probable that subjects are consciously searching for meaningful ways in which to relate their behaviour to this self-image. Furthermore, the matrices present a highly unusual opportunity to test out that self-image since they allow behaviour to which others cannot react. As with the acquisition of a new skill, it is likely that subjects must devote conscious attention to the behavioural specifications of their new self-image in order to organise their intergroup behaviour. Specifically, behaviour in a

minimal group experiment will only be discriminatory to the extent that subjects are attending to their association with their group.

The distinction between salience and attention

The juxtaposition of these two theories immediately raises the question of whether 'attention' and 'salience' are synonymous. The terms are sometimes used interchangeably (e.g. Stephenson and Wicklund, 1983; Taylor and Fiske, 1978; or Wicklund's, 1978, reference to potential causes being 'charged with responsibility to the degree that it is salient or accessible to attention' [p. 511]). On other occasions it is implied that salience and attention are separate parts of a sequence (e.g. Matthews, Carver and Scheier's, 1982, contention that 'attention would gravitate to whatever self-aspect was made salient' [p. 172]).

The distinction between salience and attention is an important one to draw. Even when something is salient, in the sense of being important or relevant, our behaviour in terms of that salient object may not be unidirectional. For example, we may choose to attend to something else so as to avoid experiencing aversive discrepancies (Wicklund, 1975) between a salient aspect of self and unavoidable behaviour (Brockner and Wallnau, 1981). In addition to this voluntary redirecting of attention there may also be involuntary forces at work. Something may be desperately important (e.g. catching a train) but our attention could be dragged in a different direction by more powerful stimuli (e.g. needing to go to the lavatory or bumping into an old friend), and thereby prevent the salient aim from being accomplished. Of course, it would be possible to argue that these distractions are more salient than the intention to catch the train. To do so would be equivalent to reducing the meaning of 'salience' to make it identical to attention. What we attend to would, by definition, be most salient. It would then

be necessary to introduce a higher order factor such as 'importance' in order to explain why behaviour remains meaningful over time. (I am not continuously attending to myself as a social psychologist and yet it is a fact which is vital to understanding my behaviour over time.) This sort of level of behavioural regulation would be what Carver and Scheier term a 'system concept'. They argue that attention is usually focused lower down the hierarchy of control.

Rather than treat salience as if it means attention it is probably more useful to regard them as separate concepts. The relationship of attention to salience can be construed as one of specificity to generality. In this analysis it is presumed that,when an object is salient, a variety of behavioural possibilities may present themselves. We then behave in terms of the one to which we are attending. It was suggested above that when attention is diverted from a salient aim we cease to behave in terms of that aim. Conversely, the more that one does attend to the salient aim, the more efficiently and in line with intention it may be accomplished (Taylor and Fiske, 1978). This position suggests that, just because we are acting in terms of (say) social identity, this does not necessarily wipe out the 'salience' of personal identity. Rather, it can be a case of behaviourally spotlighting the salient aspects of one, and of veiling the salient aspects of the other (see also Chapter 2).

Predicting minimal intergroup behaviour

The analysis provided above suggests that the prediction of intergroup behaviour on the basis of information about salience alone may be misleading. If this is so, why have experiments using the minimal group paradigm been so consistent in supporting Turner's (1981a, 1982) model? The answer presumably lies in the fact that the salience of social categorisation and

the focus of subjects' attention have tended to be congruent in previous research. Subjects have generally had little choice but to attend to their group membership. Some variations on the theme have allowed attention to alternative group boundaries (Doise, 1976; Turner, Brown and Tajfel, 1979) or to self (Turner, 1978a). Generally, however, the situation requires that subjects decide how to allocate points or money, and the group categorisation provides an obvious and attractive basis for doing so. There is, at present, little empirical evidence which might be used as a guide for predicting differential effects of salience and attention in the minimal group paradigm.

The pilot study created three combinations of salience of and attention to social categorisation. In the Enhanced condition both factors were explicitly congruent. Under such circumstances it is relatively straightforward to predict behaviour. Greater attention to the category distinctions should have two effects. First, it will highlight self-categorisation and will therefore increase the cognitive differentiation between categories (Taylor, Fiske, Etcoff and Ruderman, 1978). Second, it will increase consistency in intercategory behaviour because the standards or endpoints pertaining to such behaviour will be more closely adhered to (Carver and Scheier, 1981a; Wicklund, 1980). This second hypothesis was tested rather weakly in the pilot study by an examination of the variances between subjects within each condition. There was a danger that wide individual differences in what strategy to adopt could mask high intra-individual consistencies. A more sensitive test of the second hypothesis could therefore be achieved by an examination of the means of within-subject variances in each condition. The pilot study only used two versions of each matrix type. In order to gain a more sensitive estimate of intra-subject variance the main experiment used three versions of each matrix type. The second hypothesis holds

that intra-subject variances on matrix pulls will be lower in the Enhanced condition than in other conditions.

The second combination of attention and salience (Standard condition) might be seen as one of moderate congruence; subjects are told to make 'decisions', but are free to use whatever criteria they wish. The third combination might be seen as one of low congruence (Distracted condition). Although the social categorisation is salient subjects are told to focus on the numbers rather than the groups. Hence the usual 'endpoints' of discriminatory behaviour which may be cued by social identification are not to be used. In this condition the prediction is that the strength of intergroup discrimination will decrease and that the intra-subject variation will increase since subjects are not using the categorisation as the sole criterion for behaviour.

Individual differences in focus of attention

The opportunity was taken, in the main study, to try the relatively unobtrusive investigation of focus of attention which can be conducted using pre-tested self-consciousness measures (Scheier and Carver, 1981). Here the aim is to see whether high and low scorers on scales designed to measure chronic self-focus also differ in their behaviour. The particular scale used in the present study was described in detail in Chapter 4. At this point it would seem prudent to offer only tentative hypotheses about the effects of dispositional private and public self-focus. It seems likely that, given a salient intergroup distinction, a focus on private reactions may heighten one's sense of identity or self-definition. A focus on the more overt aspects of oneself may entail attempts to present oneself as socially attractive (Fenigstein, 1979). In any case the tendency to focus on different aspects of self may produce

differences in intergroup behaviour. The experiment to be reported was a modified replication of the pilot study. The main differences are that the subjects in the main experiment were also pre-tested for dispositional self-focus; the three conditions were run in separate rooms; instructions were simplified and were read out loud in full; and the number of subjects was increased.

METHOD

The experiment employed a 3 (Condition) x 2 (Sex) x 2 (category membership) design, with random assignment of subjects to Condition and category. Subjects were sixty 11 year old children attending a primary school in Kent. The study was conducted in the summer term of 1982. None of the subjects had participated in any previous research.

The pre-test 'self-attention' scale was administered one week prior to the experiment. This allowed the children to meet the principal experimenter. The scale comprised 12 items, to be responded to on a 7-point scale (1 = strongly agree, 7 = strongly disagree). The items concerned the extent to which subjects looked to themselves or to others to provide direction for their behaviours (see Chapter 4). It was derived partly from the Self-Consciousness Scale (Fenigstein, Scheier and Buss, 1975) and partly from a scale devised by the author and Rupert Brown (referred to in Chapter 4, and to be discussed in Chapter 7).

Materials

Prior to the experiment envelopes were prepared with the dependent measures enclosed. These included two booklets: one of points-awards matrices and another which included evaluative, affective and attitudinal items. Envelopes were pre-coded for males and females, members of the

first or second group and the experimental condition. A tape was prepared with recordings of three pairs of pieces of music (randomly ordered), each of about 30 seconds' duration; preference sheets were also prepared (see Appendix C2). These were the same as were used in the Brown and Deschamps (1981) experiment.

Matrices

Three types of matrices were used and three forms of each were presented. The purpose of this was to enable intra-subject variances to be measured as well as inter-subject analysis to be conducted. Although the matrices used in earlier research (Brown and Deschamps, 1981; Turner, 1978a) have used up to thirteen pay-off points, pilot work confirmed that 7-step matrices were appropriate for 11 year olds. The mathematics within the present matrices remains the same; only the range has been reduced. Similar reductions have been used with other young children (e.g.Vaughan et al.,1981). Examples of the matrices used are shown below.

Matrix type	Examples
MD versus MIP + MJP	4 5 6 7 8 9 10 1 2 5 7 9 11 12
MD + MIP versus MJP	10 9 8 7 6 5 4 1 2 5 7 9 11 13
MIP + MD versus F	7 8 9 10 11 12 13 7 6 5 4 3 2 1

Each type was presented in three variants. These were mathematically identical to those shown above, but 1 or 2 was added to the numbers. The instruction pages and other details of the matrix booklets differed

in each condition (see Appendix C3). In all three conditions the front page of the booklet began by saying which composer the subject preferred, and what number the subject had been given in his or her group. In the Enhanced condition attention was directed explicitly to the groups, as reflected by the requirement that subjects write down 'which groups the points were for and which group was your group' on each booklet page. In the Standard condition subjects had to write 'how many points you decided to give each person'. In the Distracted condition they were told to write 'which people you gave the points to and how many points you gave to each one'. In all conditions the two groups were referred to by the name stamped in spaces in the text of the booklets. The salience of the groups was further enhanced by using a blue coloured stamp for the Kabelac group and a red coloured stamp for the Riley group. Subjects were also reminded of which group they were in at the top of each booklet page.

The order of pages was randomised within each booklet. Each subject completed 18 pages - nine pairs of matrices, each page containing the same format. The second dependent measure booklet was the same for all subjects. It contained 7 pages and a total of 22 questions, each to be answered using a 7-point scale. These questions covered comprehension of the previous task; what the study was about; how they tried to go about giving points; how much they thought about various things; friendliness and liking for outgroup members, and pride and belongingness to the ingroup.

Procedure

All subjects were gathered together in the dining hall of the school and were introduced to the six experimenters (all male). They were informed that the first part of the study was all about 'what music people

prefer'. A tape of three pairs of musical excerpts was then played and subjects recorded their preferences for one of each pair. The response sheets were collected and three of the experimenters left the dining hall, ostensibly to 'score' the sheets. Meanwhile, the remaining experimenters divided the children into 3 sets (pre-assigned randomly, containing equal numbers of boys and girls) in an apparently arbitrary manner. It was explained that the next part of the study could only be done if the children were sitting at tables and that this required that classrooms be used. Each child was sent to one of three empty classrooms. At this stage the three absent experimenters each returned to a different room and handed the 'scored' preference sheets to the other experimenter in that room. All subjects were spaced apart at desks and were each given a pencil and an envelope containing the dependent measures booklets. Each of the three sets of children was in fact in a different condition, and it was at this point that procedures varied.

A demonstration poster was put up to show subjects how to use the matrices. The introductions in the three conditions varied. In the Enhanced condition subjects were told:

> 'Now this part of the study is all about GROUPS. In particular it is about people in the two different groups that preferred the Kabelac or the Riley music. As you know, GROUPS are very important in all sorts of ways. There are pop groups, groups of friends, groups of children; all kinds of groups can be found in everyday life. But, as I said before, we are interested in people in the Kabelac group and the Riley group. This part of the study will ask you to do things which are about being in your group or the other group.'

In the Standard condition subjects were told:

> 'Now this part of the study is all about MAKING DECISIONS. In particular it is about decisions using numbers and groups and things like that. As you know, DECISIONS are very important in school work and in everyday life. A lot of the time we have to decide things about what

'to do, where to go, what we like,and so on. So this part of the study will ask you to make decisions about giving points out and using numbers.'

In the Distracted condition subjects were told:

'Now this part of the study is all about NUMBERS. In particular it is about how we remember and think about numbers. As you know, NUMBERS are very important in school work and they play a useful part in everyday life. But a lot of the time we have to remember lots of different numbers - telephone numbers, addresses, dates, and so on. So this part of the study will ask you to try to remember all sorts of different things which are shown as numbers.'

In all conditions the instructions then continued:

'These will be things which you have to write in the booklets on these lines [points to blank lines on demonstration poster]. And,now I will explain to you how to answer these booklets. First of all you have to distribute points. Suppose that you were asked to give points to me and Mr. Smith. This is just an example ... in the booklets it will be something different. Suppose Mr. Smith is 'A' and I am 'B'. Well, to do this you can choose any one of these 7 boxes on each page. As you can see, the numbers in each box are slightly different. Now the numbers along the top are points for A (that's Mr. Smith) and the numbers along the bottom are for B (that's me). So suppose you choose this box [points to end], then A would get 12 points and B would get 15. But you might choose this one [third one from other end], in which case A would get 8 points and B would get 7. Or you might choose this one [centre] where each gets 9 points. And it's completely up to you which box you choose on each page. You just study the page carefully and choose one box and one box only and put a circle around it like this [demonstrates]. When you have done that you should then fill in the lines left blank at the bottom of the page. There are instructions about how to do that on each page.'

At this point the direction of attention was reinforced. In the Enhanced condition subjects were told:

'And, as I said before, this study is all about groups. This is not any sort of a test or anything like that. What you have to do is to write on the lines the things about groups on each page. So on this page, for example, you would first of all put a circle around certain points, then in this space [indicates] you would write the name of the group of the person on the top line and in this space [indicates] you would write whether they are in your group (write "own") or in the other group (write "other"). You should do this on

'each page of the booklet. When you have done that I will be asking you some questions about what you wrote down later on. So, just to remind you, this is all about BEING IN GROUPS.'

In the Standard condition subjects were told:

'And, as I said before, this study is all about decisions. This is not any sort of a test or anything like that. What you have to do is to write on the lines the numbers which you decided to use on each page. So on this page, for example, you would first of all put a circle around certain points and then in this space at the end of each line [indicates] you would write down how many points you gave to the person from that group. You should do this on each page of the booklet. When you have finished that I will be asking you some questions about what you decided later on. So, just to remind you, this is all about MAKING DECISIONS.'

In the Distracted condition subjects were told:

'And, as I said before, this study is all about numbers. This is not any sort of test or anything like that. What you have to do is to write on the lines the numbers which you have used on each page. So on this page, for example, you would first of all put a circle around certain points, then in this space [indicates] you would write the number of the person on the top line and in this space [indicates] you would write how many points you gave out. You should do this on each page of the booklet. When you have done that I will be asking you some questions about what you wrote down later. So, just to remind you, this is all about REMEMBERING POINTS AND NUMBERS.'

All subjects were then reminded that the study 'isn't a test of any sort; no one will see what you write except me'. Finally the experimenter read through the instructions on the covers of subjects' matrix booklets in each condition. When subjects had completed the matrices they were asked to take out the second dependent measure booklet and answer the questions therein (see Appendix C3). This booklet was identical in all three conditions. At the end of the experiment all subjects were debriefed by way of a general discussion session.

RESULTS

Initial analyses were by 2-way (Sex x Condition) ANOVA using the regression approach on SPSS so as to allow for missing data and unequal cell sizes. Subsequent analyses using the self-attention scale data were conducted to inspect the experimental responses in terms of possible individual differences in focus of attention. A full table of means for main effects is presented in Appendix C4.

Matrix pulls

The following pulls were calculated: Maximum Difference versus Maximum Joint Profit + Maximum Ingroup Profit (MD versus MJP + MIP); Maximum Joint Profit versus Maximum Difference + Maximum Ingroup Profit (MJP versus MD + MIP); and Fairness versus Maximum Ingroup Profit + Maximum Difference (F versus MIP + MD); and the reverse pull for each. For details of computation see Turner (1978a). For all types of matrices the scores have a possible range of +6 to -6. In the case of the MD (versus MJP + MIP) pull, +6 would be maximum difference in favour of the ingroup; -6 would be maximum difference in favour of the outgroup, and 0 would be fairness. Subjects completed three pairs (I/O, O/I) of each type of matrix, and the three pulls were averaged for analysis by ANOVAs.

As can be seen in Table 6.3, the MIP + MD (versus F) pulls were significantly higher in the Enhanced condition than in the Standard or Distracted conditions. A similar but weaker effect occurred on the MD + MIP (versus MJP) pulls, with only the Enhanced condition pulls being significantly different from zero for both of these pull types[3]. While the MD (versus MJP + MIP) and F (versus MIP + MD) pulls did not differ between conditions, they differed from zero within all three conditions. For the MD pulls, the order of means was similar to those

for the MD + MIP (versus both F and MJP) described above (see Table 6.3).

Table 6.3

Mean scores for each type of pull (df = 2,57)

Condition (n)	Enhanced 21	Standard 20	Distracted 19	MSe	F
MD + MIP (versus MJP)	2.08[a]*	0.90[b]	0.61[b]	4.39	2.80†
MIP + MD (versus F)	2.25[a]*	0.65[b]	0.16[b]	3.23	7.55***
MD (versus MJP + MIP)	1.59*	1.22*	1.19*	3.83	0.26
F (versus MIP + MD)	2.21*	2.45*	1.86*	3.51	0.49
MJP (versus MD + MIP)	-0.25	-0.73	-0.67	3.51	0.40
MJP + MIP (versus MD)	0.24	0.32	-0.28	3.14	0.65

Significant differences in each row are denoted by means with different letters (Newman-Keuls, $p < .05$). Means which are asterisked (*) are significantly different from zero ($p < .05$).

ANOVA effects: † $p < .10$
*** $p < .001$

Intra-subject variances across matrix pulls

The variance of each subject's responses across the three pulls of each type was computed and used to test the prediction that those of Enhanced condition subjects would be smaller than those of Standard condition and Distracted condition subjects, respectively. The clearest support for this prediction came from the MD + MIP (versus MJP) pulls. Here both the Enhanced condition and Standard condition variation were less than that in the Distraction condition. A similar pattern emerged on the MD (versus MJP + MIP) pulls (see Table 6.4). In neither case, however, did the Distracted and Standard conditions differ significantly.

Table 6.4

Intra-subject variances on pull scores (df = 2,57)

Condition (n)	Enhanced 21	Standard 20	Distracted 19	MSe	F
MD + MIP (versus MJP)	4.28[a]	4.95[a]	9.14[b]	39.14	3.40*
MIP + MD (versus F)	6.84	7.87	7.43	57.52	0.10
MD (versus MJP + MIP)	6.33[a]	5.87[a]	11.13[b]	56.94	2.79†
F (versus MIP + MD)	6.37	6.02	5.77	44.77	0.04
MJP (versus MD + MIP)	5.25	4.32	6.56	31.63	0.78
MJP + MIP (versus MD)	5.90	5.43	5.70	44.61	0.02

Significant differences in each row are denoted by means with different subscripts (Newman-Keuls, $p < .05$).

ANOVA EFFECTS: † $p < .10$
* $p < .05$

There were no significant main effects of Sex or any Sex x Condition interactions on these measures.

Self-consciousness

The twelve pre-test self-attention items were subjected to a factor analysis (see Chapter 4). It was found that the scores derived by summing the items loading significantly on the first two factors were not significantly correlated ($n = 57$, $r = .14$, $p < .1$)[4]. The items and significant factor loadings comprising factors 1 and 2 are shown in Table 6.5 below. These seem to correspond quite well to the much used Private and Public self-consciousness factors of the Self-Consciousness Scale (Fenigstein, Scheier and Buss, 1975). The internal reliabilities of these factors were = .58 and = .53 for factors 1 and 2, respectively.

Factor 1 ('Private') seems to involve an awareness of one's thoughts and feelings, including a clear expressive component ('I always say what

I think'). Factor 2 ('Public') seems to involve efforts to make oneself socially attractive to others by conforming or fitting in with their views. Note that these two factors are both conceptually and statistically independent. They match the factors obtained by Fenigstein et al. (1975) in so far as they represent a concern with the covert (private) and overt (public) domains of self as objects of evaluation.

Table 6.5

Self-consciousness factors

Items	Factor number 1 (Private)	2 (Public)
I always say what I think	.82	
I notice my inner feelings a lot	.41	(-.29)
It is always best to mix with the crowd	-.36*	
I am always sure about what I think	.70	
I can always tell when my mood is changing	.59	
I like to be the same as my friends		.78
It is better to agree with people than to argue about what you think		.81
I compare myself with other people a lot		.31

Items loading on each factor were summed to give subjects a score for each factor (with the exception of the bracketed item on Factor 2).

* Scores on this item were reversed.

Fifty-seven subjects had participated in both the self-consciousness pre-testing and the main experiment. Initially it was decided to covary out the self-focus factor by using summed scores of items on the private and public factors as covariates in a 2-way (Condition x Sex) ANOVA. Significant contributions to the variance due to covariates were found on several items. The private factor affected liking for outgroup members ($F = 4.67$, $df = 1,49$, $p < .05$), pride in being a member of the ingroup

($F = 8.11$, $df = 1,49$, $p < .01$), and friendliness to outgroup ($F = 4.32$, $df = 1,49$, $p < .05$). The public factor affected friendliness ($F = 4.13$, $df = 1.49$, $p < .05$) and also the MJP + MIP (versus MD) pulls ($F = 7.59$, $df = 1,49$, $p < .01$). In order to investigate the effects of Private and Public self-consciousness further, a median split was executed on both sets of scores providing high (< 15) and low (> 14) Private and high (< 11) and low (> 1Ø) Public self-conscious subjects. These were then entered as independent variables in the ANOVAs. This analysis revealed several significant effects involving both dimensions.

Effects of self-consciousness

There were four significant main effects of the Private self-consciousness factor (see Table 6.6). Highs expressed more liking for and friendliness towards the outgroup than did lows. Highs also felt a greater sense of belongingness and pride in the ingroup than did lows. This last effect was qualified by a significant interaction with condition ($F_{2,54} = 3.62$, $p < .05$; see Figure 3) where the difference between Highs and Lows was maximised in the Enhanced condition. A similar but non-significant pattern occurred on ingroup belongingness ($p < .10$; see Appendix C5). Private self-consciousness seemed to relate specifically to affective measures.

Table 6.6

Main effects of self-consciousness (df = 1,54)

Factor Level (n)	Private High 28	Private Low 29	Public High 28	Public Low 29	MSe	F
Liking for outgroup	2.50	3.55			2.43	4.17*
Friendliness to outgroup	2.43	3.24			1.31	10.32**
Belongingness to ingroup	3.57	4.83			3.75	4.79*
Pride in ingroup	3.36	5.21			2.84	13.62**
Task was about numbers			2.50	3.79	4.47	6.73*

All items are scored from 1 (very much) to 7 (very little).

ANOVA effects: * $p < .05$
** $p < .01$

Table 6.7

Interactions between private and public self-consciousness (df = 1,54)

Public Self-consciousness / Private Self-consciousness (n)	High High 14	High Low 14	Low High 14	Low Low 15	MSe	F
Aiming for MIP	2.29^{a}	3.36	4.21^{b}	3.20	4.90	4.31*
Aiming for MD	2.71^{a}	4.29	4.71^{b}	3.33	4.10	5.62*
Perceived intergroup similarity	4.29	3.21	3.57	3.87	2.03	4.44*

All items were scored very 1 (very much) to 7 (very little).

ANOVA effects * $p < .05$.

Significant differences in each row are denoted by means with different subscripts (Newman-Keuls, $p < .05$).

F = 3.62, df = 2,54, p = .038

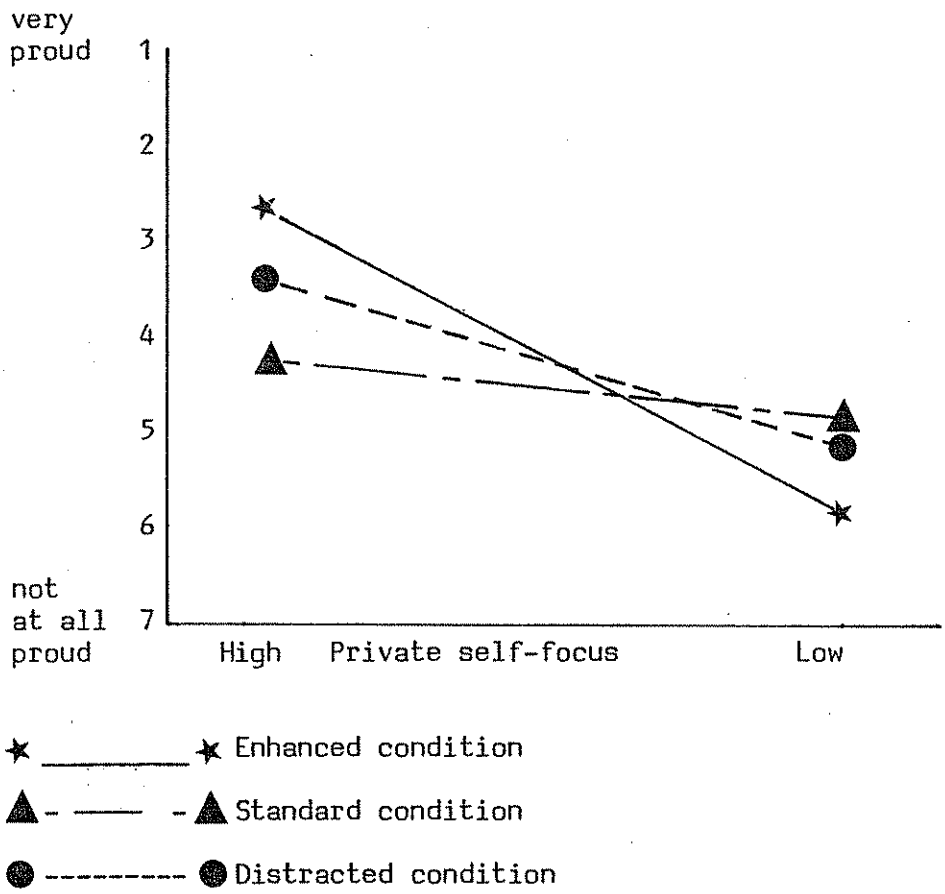


Figure 3: Mean degree of pride expressed due to group membership broken down by Condition and Private self-focus

There was also a significant main effect of the public self-consciousness factor. Highs felt that the study was about numbers more than lows did. Interestingly, there was also a Public x Condition interaction on an item tapping how much subjects enjoyed learning numbers. While low Publics did not differ between conditions, highs were positive in the Distracted condition, neutral in the Standard condition, and negative in the Enhanced condition ($F_{2,54} = 4.63$, $p < .05$; see Figure 4). This result seems to indicate that subjects who were more attentive to their public self were reflecting the instructional set (St. Claire and Turner, 1982).

$F = 4.63$, $df = 2,54$, $p = .017$

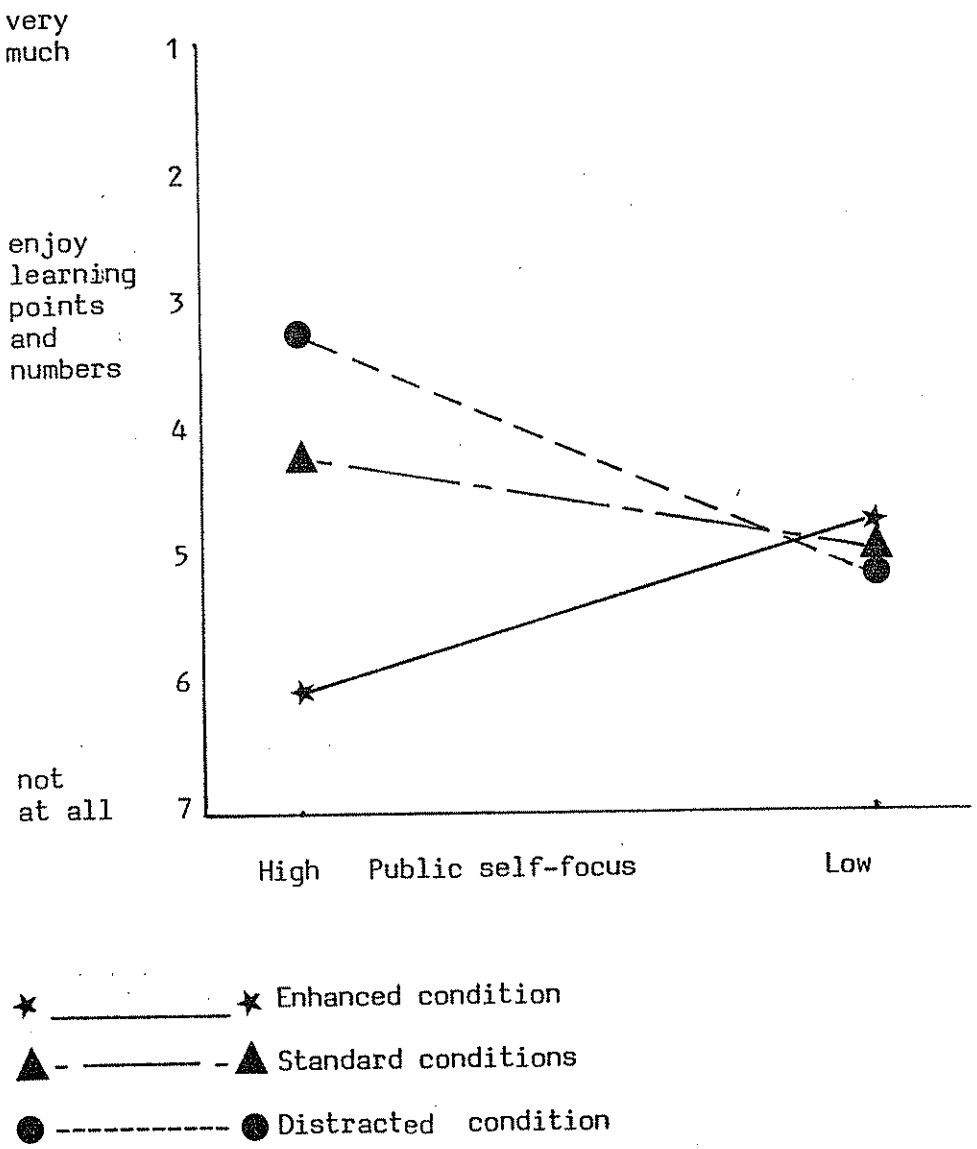


Figure 4: Mean positivity about learning numbers, broken down by Condition and Public self-focus

There were also three significant interactions between Private and Public self-consciousness (see Table 6.7). Among high Privates, high Publics said they had used strategies of maximising ingroup profit and relative profit more than did low Publics. Among low Privates there was no difference between high and low Publics. On a rating of perceived intergroup similarity the effects resided more within High publics. For them, the high Privates saw least similarity and the low Privates saw the most. To draw out an important trend from these interactions, the greatest expression of intergroup differentiation occurred amongst subjects who were high scorers in both the private and public factors. These effects were independent of experimental condition.

DISCUSSION

The proposition that attention would be an important factor in intergroup discrimination has been supported in two ways. The specific hypothesis that the effect of social categorisation on intergroup behaviour depends on the extent to which it is being attended to was partly supported by the results from the matrix pulls: both on the means of the MIP + MD (versus F) pulls, and on the intrasubject variances of the MD + MIP (versus MJP) pulls. Second, the prediction that variations in habitual self- consciousness would also influence behaviour was supported, although not in as clear or systematic a form as might have been wished.

While the main results and trends of means support the hypotheses, the actual effects tended to be rather weak. In fact, the pulls in the Enhanced condition are most typical of the pattern found in minimal group experiments, and thus would have been expected to occur in the Standard condition, albeit in a relatively weaker form. There are a number of possible explanations for the lack of MIP + MD (versus F) and

MD + MIP (versus MJP) strategies in the Standard condition.

One possible reason for the attenuated biases in the Standard condition is that the task was just too complicated for the children. Only when they were attending quite carefully (i.e. in the Enhanced condition) could they discriminate effectively. However, answers to the question 'How well did you understand how to answer the questions in the [matrices] booklet?' did not differ between conditions; all answers were towards the 'very well' end of the scale. This fact, earlier research (Brown and Deschamps, 1981; Vaughan et al., 1981), and the considerations described in Chapter 5 make it unlikely that the age of subjects in the present experiment had a serious impact on the results.

A more convincing explanation may reside in the method of scoring the matrix pulls. Maximum Ingroup Profit appeared to be a rather weak strategy over all (see the MJP + MIP versus MD pulls in Table 6.3) and differences between subjects in the choice of where to accrue ingroup profit (over the three pairs of each matrix type) may well have washed away effects which were, nevertheless, occurring within individuals. Jaspars, Warnaen, Hewstone and Fincham (1982) presented evidence suggesting that intergroup discrimination is not consistent across matrices. Subjects tend to be mostly fair but to discriminate concertedly on individual matrix pairs. Since the present study used three pairs of each matrix type it may simply be that individual variations in the choice of where to discriminate washed away overall effects which were nevertheless occurring within individuals. Such an interpretation is supported by the finding that intra-individual variation across the MD + MIP (versus MJP) pulls was greater in the Distracted condition than in the Enhanced condition. Concordantly, the strength of MD + MIP (versus MJP) and of the MIP + MD (versus F) pulls was greater

in the Enhanced condition than in the Standard condition and Distracted condition[5].

The explanations advanced so far have dwelled on possible sources of error in the experiment. A bolder interpretation of the results is possible. The pattern of means of the matrix pulls is almost identical in the pilot study and the main experiment. In both studies it was in the Enhanced condition that MIP + MD (versus F), the MD + MIP (versus MJP) and the MD (versus MJP + MIP) pulls were most reliably different from zero. In both studies the variances on those pulls tended to be lowest in the Enhanced condition and highest in the Distracted condition. When the two studies are taken together, it appears that the effect of the Enhanced condition is to increase the amount of differentiation and ingroup profit that subjects attempt to gain, but only when that profit lets the ingroup win over the outgroup; means of the MJP + MIP (versus MD) pulls did not differ between conditions. This view of the data raises another general perspective from which to explain the results - the motivation for self-esteem.

Motivation

One way of interpreting these results hinges upon the fact that subjects expected to be asked about their points-allocation in a fictitious third section of the study. It may be that the possibility of gaining self-esteem through performance on a memory task, or reporting one's decisions (i.e. in the Distracted and the Standard conditions) obscured the possibilities of raising self-esteem through intergroup behaviour. Following this reasoning, subjects were using different methods of improving their self-image in each of the three conditions. Such an interpretation is plausible, but is probably wrong. While subjects were completing the matrix booklet there was no immediately

available method of gaining positive self-esteem other than through social comparison (Oakes and Turner, 1980). Furthermore, the possibility of making favourable comparisons anonymously was equally available to all subjects. Finally, instructions in the Distracted and Standard conditions did not logically preclude systematic intergroup behaviour. Indeed, such behaviour could have been a sensible way to facilitate remembering of numbers, or making decisions.

Self-attention theorists (e.g. Wicklund, 1975) and social identity theorists (e.g. Oakes and Turner, 1980; Turner, 1982) agree that individuals are motivated to maintain or gain positive self-esteem. The results of the present experiment seem to indicate that two processes are at work when people are categorised. A general effect appeared to cut across conditions (on the MD and F pulls), in line with the ideas put forward by Doise (1978). The impact of the Enhanced condition seems to have been not merely to systematise inter-category behaviour, but to do so in such a way that absolute ingroup gain (and by implication self-gain) was maximised. Thus, increased attention to one's social categorisation seems to correspond in some ways to the effects of identification with a group (Brewer, 1979; Horwitz and Rabbie, 1982; Turner, 1982) by increasing intragroup commitment. This point will be taken up again in later chapters.

Self-consciousness

Only when the 'task' was completed did self-consciousness begin to exert a noticeable influence. While higher private self-attention generally amplified the positivity of affective ratings towards both the ingroup and the outgroup (cf. Scheier and Carver, 1977), the effect was particularly marked for pride in the ingroup. For those who had been in the Enhanced condition the effect was strongest of all. This

result is consistent with earlier findings that increased private self-attention encouraged and sustained the effect of prior commitment (Scheier and Carver, 1980).

Higher publicly self-conscious subjects were more keen to express enthusiasm for the task of learning numbers than were lows, but only in the relevant (Distracted) condition. This is fairly consistent with the observation that public self-attention reflects a concern for positive social evaluation (Fenigstein, 1979). Subjects who were high scorers on both the private and the public factors appeared to wish to express publicly, or give evidence of, their ingroup affiliation through their (inaccurate) reports of their behaviour on the matrix booklets.

It is curious that the self-consciousness variables did not influence subjects' use of the matrices. One possible reason for this is that the task did not allow subjects to express their personal views. It could also be that subjects were unsure of which the most 'desirable' strategies were (St. Claire and Turner, 1982), and in which groups their friends were. In general, while the self-consciousness results are intriguing, they should be viewed with some caution. The adult Self-Consciousness Scale (Fenigstein et al., 1975) was only designed for use with students and it is worth restating that the self-consciousness analyses in the present study are mainly exploratory. Perhaps their principal use is in corroborating the basic point to emerge from the main effects of Condition: that focus of attention is a potentially important variable in the determination of intergroup behaviour.

Attention, salience and social categorisation

Earlier on (p. 218), it was suggested that salience and attention might refer to general and specific aspects of consciousness, respectively.

An equally useful characterisation might be in terms of properties of the object and properties of the person (Duval, 1976). An object may be highly salient or unusual but the person may not attend to it. Therefore, predictions about the effects of salience may be made on a statistical or rational basis, whereas predictions about where attention is focused may be made on a psychological basis. 'Salience' in this sense describes the important or distinctive features of the situation, whereas 'attention' implies some kind of active role for the person.

As applied to social categorisation, the problem is exemplified by Turner's (1982) analogy of an orchestra for the self-concept. If the self-concept is equivalent to an orchestra's musical technology and instrumentation, a salient self-image might be the particular sound it is making. Turner regards intergroup behaviour as being contingent upon the salience of the relevant social identifications. This is fine, until we note that a person may choose to ignore the musically salient sound of the violins and be keenly observing the activity of the percussionist. More simply, people may direct their attention. Because of this there is often likely to be a disparity between what is apparently salient and how people behave in the light of that salient object.

The results of the experiment reported here lend credence to these reservations about Turner's views. Subjects were hearing the sound of the orchestra: they responded to social categorisation by using MD and F in all three conditions. In other words, the social categorisation was salient in all conditions. However, it was really only in the Enhanced condition that the effects which are theoretically associated with social identification became prominent. Therefore, it does seem reasonable to conclude that focus of attention is both conceptually and empirically distinguishable from salience.

CONCLUSIONS AND FURTHER CONSIDERATIONS

The results of the pilot study and the main experiment converge, so providing a degree of support for the general hypothesis that intergroup discrimination in a minimal group context requires that attention be paid to the intergroup distinction. The salience of social categorisation *per se* is not an entirely sufficient condition for intergroup discrimination.

If the pilot and experimental matrix pulls provide a coherent picture the effects of dispositional self-consciousness seem to represent a rather different landscape. These effects were restricted to affective and evaluative items and did not influence the relatively behavioural matrix pulls. Perhaps the use of measures of dispositional self-consciousness would have revealed important effects in the experiments reported in the previous chapter. In any case, the data from the present chapter indicate that this method is a useful and meaningful way of investigating the effects of self-attention in an intergroup context. What is required is some corroborating evidence in order to demonstrate the usefulness of individual differences in self-consciousness when more realistic groups are concerned. Such evidence is available from a study which chronologically preceded those reported in this chapter. That study will be reported separately because it provides a helpful bridge between the method and results of these minimal group experiments and later studies which involved real groups.

NOTES

1. This was because the children were younger than had been used in most earlier minimal group experiments. Discussions with colleagues and with children of the subjects' age suggested that the full matrices included numbers which were too complex for comprehensibility.

2. When describing pull scores, the strategy on the left hand side of the equation is the pull referred to (e.g. 'MD versus MIP + MJP' refers to the pull of MD on MIP and MJP). The higher the (positive) score, the stronger is the pull. 'MD' refers to Maximising the Difference; 'MJP' is Maximising Joint Profit; 'MIP' is Maximising Ingroup Profit; and 'F' is Fairness (see Turner, 1978a, for details).

3. An examination of the means of the 9 individual pulls involving MD revealed that 8 were in the predicted direction (Enhanced condition > Standard condition > Distracted condition).

4. The remaining factors were significantly correlated with one another, and therefore were not inspected further.

5. There may also be some doubt over whether the first and second responses to a specific matrix (with In/Out places reversed) should be used together in calculating a 'pull' score (Brown, Tajfel and Turner, 1981). If a subject balances a response on a 6/3 Maximum Difference matrix with one on a 2/5 Maximum Difference matrix (rather than on the 3/6 one) this psychologically valid pull would be missed in the analysis. Owing to the randomly ordered presentation of the matrices such occurrences are fairly likely. Since it is normally assumed that subjects are consistent across variants of each type of matrix this explanation depends on a large intra-subject variance. Perhaps using 9 or 11-step matrices would have been more sensitive and the responses less 'noisy'.

CHAPTER 7

SELF-CONSCIOUSNESS, INTERGROUP SIMILARITY AND INTERGROUP BEHAVIOUR

This chapter reports some further evidence about the influence of dispositional differences in self-attention on intergroup behaviour. This evidence is derived from an experiment which was designed in collaboration with Dr. Rupert Brown, and which was principally concerned with intergroup similarity and goal orientations (Brown and Abrams, 1982). However, it bears some resemblance to the minimal group setting used in the previous chapter. Once again all subjects were assured of the confidentiality of what they did and they did not know any individual outgroup members. What is different about the present experiment is that subjects were familiar with the ingroup - their school. The situation was made all the more real by the fact that subjects had to take a test, the outcome of which determined the amount of prize money given to their school. Furthermore, although the outgroup was anonymous, subjects were given information about its attitudes and academic status.

Not only were the groups more real but it must also be assumed that the salience of the intergroup distinction was equivalent in every condition in the present experiment. This fact is useful since it allows us to examine differences due to attentional focus which are unconfounded with differences due to salience. Although in the minimal group studies the effects of the Enhanced condition could have been due to the increased salience of the social categorisation, it was argued that the effects were actually due to attentional differences. However, dispositional focus of attention did not influence intergroup reward allocations. Its effects were limited to rating scales which were used after the 'task' had been completed. In the present experiment there was no explicit directing of attention, and therefore

any effects of dispositional differences in focus of attention should influence the whole range of measures. Two general hypotheses can be proposed: (i) heightened private self-attention may be associated with stronger affective reactions (cf. Scheier and Carver, 1977); (ii) heightened public self-attention may be associated with positive self-presentation and socially attractive behaviour. The position of the ingroup relative to the outgroup is varied in this experiment and it is likely that the effects of private and public self-attention may also depend upon the nature of these intergroup relations.

These hypotheses are more or less directly derived from the results obtained in the minimal group experiment in Chapter 6. An alternative hypothesis (no effects of self-attention) could have been derived if only the results from Chapter 5 had been considered. In those experiments the experimental manipulation of self-attention had a generally non-significant attenuating impact on ingroup biases. If dispositional self-attention is influential in the present experiment this adds support to the idea that situational and dispositional causes of self-attention may not have similar effects where intergroup behaviour is concerned.

The experiment will be described briefly, and the main results will be summarised. Following this, the main part of the chapter will involve a detailed consideration of the effects of dispositional self-attention alone, and interacting with conditions.

SIMILARITY EXPERIMENT

An experiment was designed (in collaboration with Rupert Brown) to examine how competition and co-operation would combine with intergroup similarity to affect intergroup behaviour. This experiment is described in Brown and Abrams (1982) and will therefore only be summarised briefly

here.

The experiment built on two others (Brown, 1984) which established that the anticipation of, or psychological orientation of, co-operation in intergroup contexts produced results which support similarity-attraction theories. These predict that,the more similar are two individuals in terms of attitudes (Byrne, 1971; Duck, 1977) and status (Reagor and Clore, 1970), the more positive they will feel towards one another. However, subjects with a competitive orientation seemed to behave in a way supportive of social identity theory. Greater status and attitude similarity seemed to engender more negativity towards outgroups. Brown and Abrams (1982) suggested that because competitiveness might involve a need for uniqueness and distinctiveness it should lead to greater intergroup differentiation; such needs would presumably be amplified if the outgroup appears to be similar on status and attitude dimensions. In Brown's (1984) earlier experiments this finding only occurred on subjects' subjective competitiveness. The experimental manipulation of anticipated competition or co-operation had no effects.

Brown and Abrams (1982) strengthened the manipulation of goal orientation by using actual competition and co-operation rather than anticipated co-operation or competition. The full experimental design therefore manipulated Task (Co-operative, Competitive), Attitude similarity of outgroup (Similar, Different) and Status similarity of outgroup (Higher, Equal and Lower). 12 year old children from two secondary schools in Kent participated.

METHOD

The 208 subjects were randomly allocated to Condition. The Task manipulation was carried out with separate sets of children, but the

Status and Attitude manipulations were carried out simultaneously within the same room, using written instructions. 184 subjects had participated in a pre-test session during which a version of the Self-Consciousness Scale was administered (see Chapter 4, and Appendix A 1). The full design of this experiment is presented in Appendix D1.

Procedure

Subjects were told that the experimenters were trying out a new kind of 'General Abilities' test of English and Mathematics. Furthermore, they would be joining with a school from another part of the country in doing this test. Depending on Task condition subjects were led to believe that their school could win some prize money either by co-operating or competing with this other school[2]. Subjects were told that, prior to taking the test,they might like to know more about how their own and the other school compared. Information sheets were handed out which showed the other school to be of higher, equal or lower academic status, and to hold similar or differing attitudes to Mathematics and English as school subjects. The 'test' was then administered (5 minutes were allowed). After this, subjects completed the dependent measure booklets (see Appendix D1) which contained 14 questions about their perceptions of the experiment, feelings of pride and belongingness to the ingroup, liking, friendliness, co-operativeness and competitiveness toward the outgroup; and how well they thought the ingroup and outgroup had performed on the test. These items were responded to on a 10 cm. line which was later scored as a 10-point scale (0-9) where a higher number denotes greater agreement or approval. Finally, an inverse ingroup/outgroup reward matrix was provided in which £60 for own school and £0 for the other was at one extreme, and the reverse was at the opposite end.

RESULTS

Summary of main results

A fuller account of the main results is presented in Appendices D2 and D3. It appeared that attitudinal similarity was an attractive property, even in an outgroup, and even when intergroup relations were competitive. However, this effect may depend on the ability of group members to find alternative dimensions on which to differentiate between groups. When both outgroup status and outgroup attitudes were similar to those of the ingroup, ingroup bias was elevated relative to when only one of these was similar. While these results are interesting in their own right, it is the impact of dispositional self-consciousness on the dependent measures which is of importance for more detailed consideration.

Self-consciousness

The pre-test self-consciousness scale was described in detail in Chapter 4. Two of the factors derived from it seemed to correspond well to private and public self-focus. There are several parallels between the types of dependent measures used in the Brown and Abrams (1982) study and those used in the minimal group studies reported in the previous chapter. Once again, there are measures of ingroup and outgroup affiliations, of intergroup rewards and of perceptions of the situation. The question which arises is the extent to which the effects of dispositional self-consciousness are also consistent with those found before. The items comprising the two factors are reproduced below:

Private factor: I'm always trying to understand myself
I'm generally aware of my inner feelings
I'm alert to changes in my mood.

Public factor: I'm concerned about the way I appear to others
I'm self-conscious about the way I look
I'm concerned what other people think of me.

Subjects were divided into high and low scorers on each factor by

a simple median split, thereby creating four cells, each containing 48 or 49 subjects (see Table 7.6 below). Each self-consciousness factor was entered separately into ANOVAs with Task, Status and Attitude factors.

Private self-consciousness

There were two significant main effects of Private self-consciousness. Highs attempted fewer test items than did lows and regarded the test as a better indicator of ability than did lows. The fact that highs and lows did not attain different test scores suggests that highs were concentrating more carefully during the test. There were also two nearly significant effects: one on evaluative bias and the other on ingroup pride (both ps < .06). Quite simply, highs were prouder of belonging to their school, and expressed more bias in its favour than did lows (see Table 7.1).

TABLE 7.1

Main effects of Private self-consciousness (1,158 df)

	High Private n = 84	Low Private n = 98	MSe	F
Test items attempted	23.06	25.31	32.50	6.15*
Approving the test	5.71	4.96	5.39	4.83*
Evaluative bias	1.26	0.70	5.21	3.58†
Ingroup pride	6.88	6.32	4.70	3.64†

Table 7.2

Task x Private self-consciousness interactions (1,157 df)

Task / Private self-consciousness	Competition High n=47	Competition Low n=47	Co-operation High n=35	Co-operation Low n=52	MSe	F
Competitiveness toward outgroup	6.49	5.59	5.28	5.77	6.04	6.31*
Perception of task as competitive	6.91^{c}	6.15^{c}	1.26^{a}	2.94^{b}	5.82	9.20**

Means with different subscripts in a row differ (Newman-Keuls, $p < .05$).

Table 7.3

Task x Status x Private self-consciousness interaction on liking for outgroup

Task / Private self-consciousness	Competition High	(n)	Competition Low	(n)	Co-operation High	(n)	Co-operation Low	(n)
High status	4.67	(18)	4.75	(12)	5.33	(12)	5.22	(18)
Equal status	5.92	(12)	4.25	(20)	5.44	(9)	5.19	(12)
Low status	3.83	(17)	5.60	(15)	5.67	(15)	5.00	(13)

† $p < .10$
* $p < .05$
** $p < .01$

There were four significant interactions between Private self-consciousness and other independent variables. All of these involved Task. The two Task x Private interactions involved goal orientation. Highs felt more competitive than lows in the Competition condition but less competitive than lows in the Co-operation condition. Highs also perceived the groups as working against each other more than did lows in the Competition condition but less than lows in the Co-operation condition (see Table 7.2).

There was a significant Task x Attitudes x Private interaction on the intergroup reward matrix ($F_{1,151} = 7.24$, $p < .01$). In the Co-operation condition all subjects showed low levels of bias. However, in the Competition condition high and low private self-consciousness had different effects, depending on attitude similarity. As shown in Figure 5 (see also Appendix D4 for tables), high Privates were much more biased against similar outgroups than were lows. This finding was slightly reversed against different outgroups.

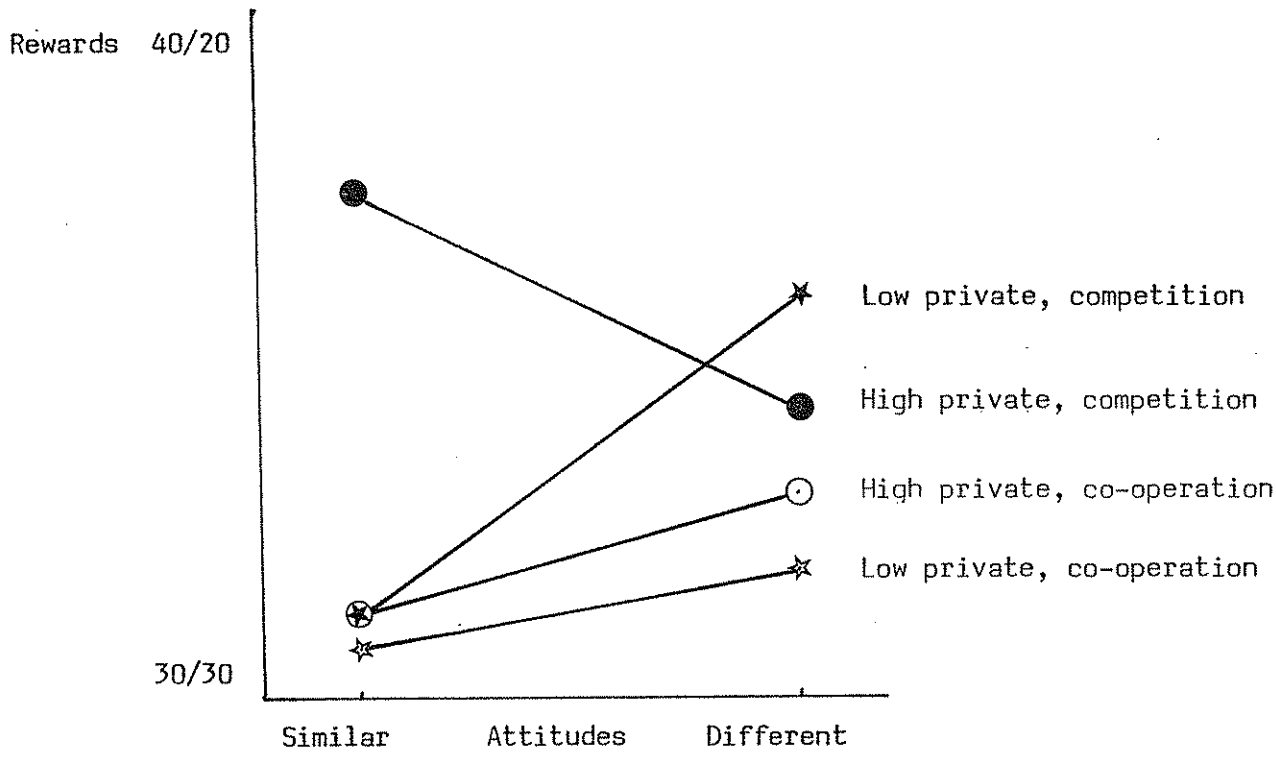


Figure 5: Task x Attitude x Private self-consciousness interaction on intergroup reward allocations

Finally, there was a significant Task x Status x Private interaction on the measure of outgroup liking ($F_{2,158} = 3.18$, MSe = 4.56, $p < .05$), as can be seen in Table 7.3 above. Again, the largest differences occurred within the Competition condition. This time, however, similarity had different effects. High Privates thought they would like a similar status group more than higher or lower status groups. The reverse was true among low Privates[1].

Public self-consciousness

There were no main effects of public self-consciousness. On both test attainment and number of items attempted there were significant Public x Status interactions. High Publics did better than did lows against the high status group, were no different from lows against the equal status group, and were worse than lows against the low status group. This was principally because lows were unresponsive to outgroup status, whereas highs were acutely aware of it. This view is corroborated by a significant Status x Public interaction on ratings of outgroup status (see Table 7.4). On all three of these interactions the lowest scores are to be found in the high Public/low Status outgroup condition, while the highest are to be found in the high Public/high Status outgroup condition. Newman-Keuls' comparisons reveal that these two conditions are significantly different ($p < .05$) in each case.

Table 7.4

Status x Public self-consciousness interactions (2,158 df)

Public self-consciousness / Outgroup status	HIGH n=37 High	HIGH n=29 Equal	HIGH n=28 Low	LOW n=23 High	LOW n=32 Equal	LOW n=33 Low	MSe	F
Number of attempted test items	25.73^{b}	25.17^{b}	20.96^{a}	24.35^{b}	24.72	24.36	33.32	3.17*
Score attained	19.70^{b}	18.45	14.82^{a}	17.13	18.22	18.30	49.15	3.16*
Perceived status of outgroup	6.69^{bc}	5.41^{ab}	4.30^{a}	5.05^{ab}	5.93^{bc}	4.52^{a}	3.71	4.99**

Table 7.5

Task x Public self-consciousness interaction on how well subjects would work with the outgroup

Self-consciousness / Task	High Public	(n)	Low Public	(n)
Competition	5.13	(47)	4.66^{a}	(47)
Co-operation	5.67	(46)	6.22^{b}	(41)

Table 7.6

Private self-consciousness x Public self-consciousness interactions (1,143 df)

Public self-consciousness / Private self-consciousness	HIGH High n=49	HIGH Low n=38	LOW High n=48	LOW Low n=43	MSe	F
Evaluation of ingroup performance	6.67	6.47	5.96	6.65	2.39	5.65*
Feelings of competitiveness to outgroup	5.84	5.29^{a}	5.58	6.70^{b}	6.02	4.57*

Means with different subscripts for any one dependent variable differ significantly (Newman-Keuls, $p < .05$).

* $p < .05$
** $p < .01$

Finally, there was a significant Task x Public interaction on subjects' estimations of how well they might work with the outgroup ($F_{1,157} = 3.91$, MSe = 6.01, $p < .05$). Low Publics were more positive than highs in the Co-operation condition but more negative than highs in the Competition condition (see Table 7.5).

Private x Public interactions

2 (High, Low Private) x 2 (High, Low Public) ANOVAs were performed on the dependent measures. In addition to the main effects of Private, described above, there were two significant Private x Public interactions. Evaluations of ingroup performance by subjects who were high or low on both dimensions were more positive than were those of subjects who were high on one and low on the other. A similar effect was found on subjects' ratings of how competitive they felt towards the outgroup, as can be seen in Table 7.6, above.

Further analyses

Because of problems with cell sizes it was impossible to perform Public x Private x Task x Status x Attitudes ANOVAs on the data. However, it was still important to examine the interactive effects of both self-consciousness factors with the other independent variables. For this reason only those subjects who were high on one dimension and low on the other were used in subsequent analyses, and then this variable (Self-consciousness: High Private, High Public) was added to Task x Status x Attitudes ANOVAs. While there were no main effects of Self-consciousness, there were several interesting interactions.

There were two Status x Self-consciousess interactions (see Figure 6 and Table 7.7). Subjects who were high only in Private expressed greatest evaluative bias against a similar status outgroup; indeed,

they only showed bias against that outgroup. Subjects who were high only in Public showed most evaluative bias against higher or lower status outgroups; again, only showing bias against these. A very similar pattern was found on ratings of how well subjects thought they could work with the outgroup; High Privates were least favourable and High Publics were most favourable to the similar status outgroup.

Table 7.7

Self-consciousness (High on only one dimension or the other) x Status interactions (2,64 df) (see Figure 6)

Status of outgroup	HIGH		EQUAL		LOW			
Self-consciousness	Private n=17	Public n=10	Private n=20	Public n=12	Private n=11	Public n=16	MSe	F
Evaluative bias against outgroup	-0.76^{a}	1.70^{bc}	1.00	-0.17^{ab}	-0.20^{ab}	2.60^{c}	4.65	5.86**
Positivity of working with Outgroup	5.47	5.30	4.65	6.25	6.55	4.94	4.19	4.29*

Means with different subscripts differ significantly (Newman-Keuls, $p < .05$).

* $p < .05$
** $p < .01$

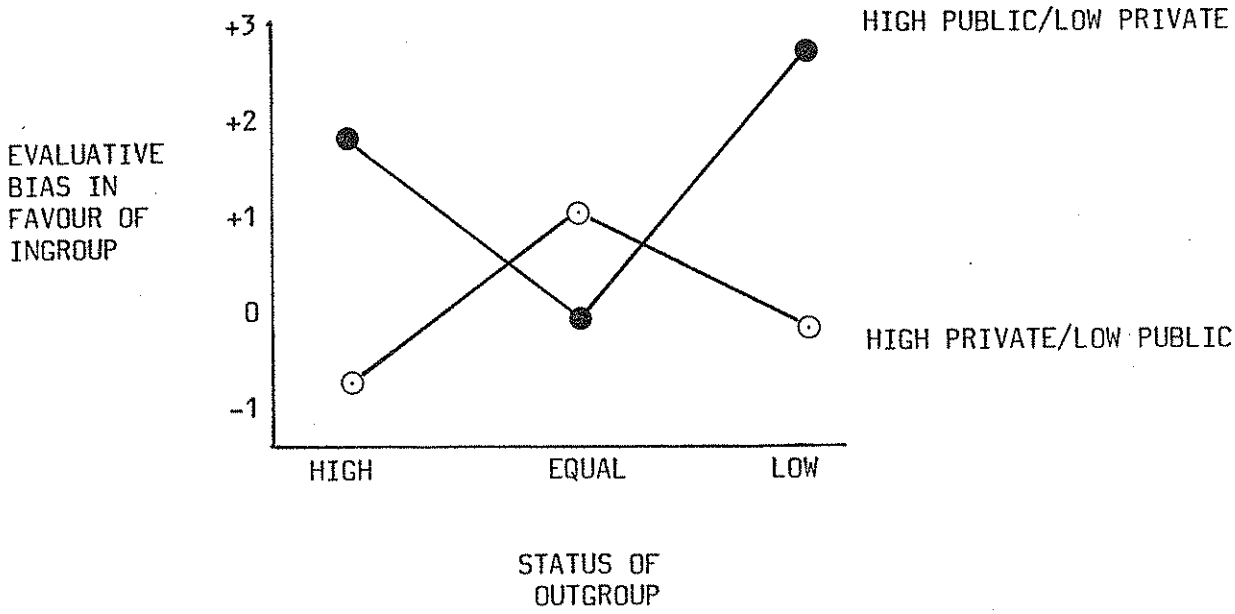


Figure 6: Self-consciousness x Status interaction on evaluative bias

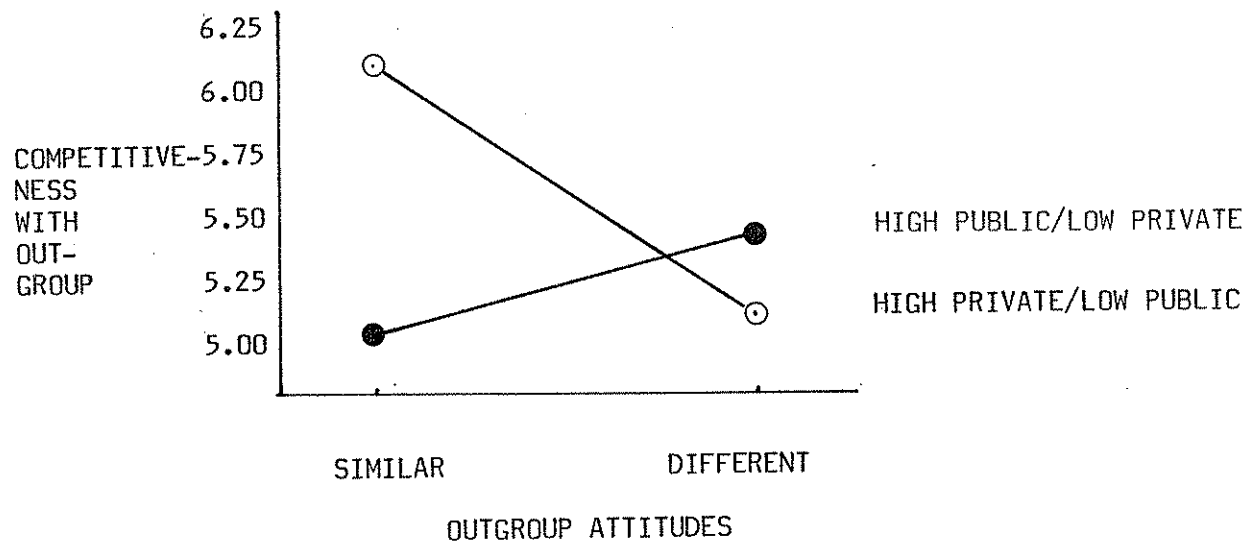


Figure 7: Self-consciousness x Attitude interaction on competitiveness towards outgroup

There was one Self-consciousness x Attitudes interaction. High Privates felt more competitive towards similar attitude outgroups than towards different attitude outgroups. The reverse was true for High Publics ($F_{1,64}$ = 4.50, MSe = 6.96, $p < .05$) (see Figure 7 and Appendix D4).

Finally, there was a Self-consciousness x Attitudes x Task interaction on the intergroup reward measure. Among the High Privates, subjects in the Competition condition showed more ingroup bias than did those in the Co-operation condition. Attitudinal similarity was irrelevant. However, High Publics were much more biased against similar attitude outgroups if they were in the Competition condition than if they were in the Co-operation condition. When the outgroups held different attitudes this pattern was slightly reversed ($F_{2,58}$ = 5.08, MSe = 0.60, $p < .05$; see Table 7.8, below).

Table 7.8

Self-consciousness x Attitude x Task interaction on reward allocations

Self-consciousness	HIGH PRIVATE				HIGH PUBLIC			
Task / Attitudes	Competition	(n)	Co-operation	(n)	Competition	(n)	Co-operation	(n)
Similar	3.33	(9)	3.00	(13)	3.92	(12)	3.00	(4)
Different	3.55	(11)	3.17	(12)	3.29	(7)	3.42	(12)

DISCUSSION

The main effects of private self-consciousness appear to support the idea that it involved an increased awareness of social identity in this experiment. Highs felt more proud and more biased towards their school than did lows. They were particularly aware of the goal relations between the groups and liked equal status outgroups as competitors more than higher or lower status groups. However, while equal status was

attractive to high privates, similar attitudes among competitors were clearly unattractive.

The rather more self-presentational orientation of the high publics is demonstrated by the fact that their test performance (the only behaviour which would actually involve contact with the outgroup) was linearly related to the academic status of the outgroup. They almost tailored their effort to match the performance they expected from the outgroup. The fact that the effects of high public self-consciousness were restricted to these performance-related measures suggests that they are concerned with overt aspects of their behaviour rather than with feelings of self-definition and identity. When both private and public are examined together it appears that the former evokes hostile reactions towards similar outgroups, whereas the latter evokes favourable reactions.

Comparison with the minimal group data

One important point of agreement in the self-consciousness analyses in the minimal group and present experiments is that higher private self-consciousness was associated with greater pride in group membership. Also, just as this affective index of group identification was heightened in the relevant (Enhanced) condition of the minimal group study, high privates in the present study felt more competitive when the outgroup was posing a greater threat (e.g. in competition conditions, or with similar attitude outgroups). Another similarity between studies resides in the Private x Public interactions. When subjects were simultaneously high or low on both dimensions they expressed more ingroup loyalty than when they were high in one dimension but low in the other.

This result seems to be partially qualified by the interactions obtained in the final analyses of the present study. Being high only

on one dimension can lead to behaviour which is quite different from being high only on the other. However, this difference does not generalise across conditions; it is a difference in reaction to specific situations. Subjects high only in private self-consciousness reacted to status and attitude similarity negatively, as predicted by social identity theory. In contrast, subjects high in only public self-consciousness reacted to similarity positively, as predicted by similarity-attraction theories. These data make sense in terms of Scheier and Carver's (1981) claim that private self-focus enhances the awareness of self-definition (in this case, social identity), whereas public self-focus increases one's sensitivity to social attractiveness (e.g. Fenigstein, 1979).

Together with those from the minimal group experiments, these results reinforce support for the idea that focus of attention can have a demonstrable impact on intergroup behaviour. The experiments in Chapter 5 seemed to show that the crude experimental induction of self-awareness had no discernible influence on intergroup behaviour. However, the use of dispositional differences in the direction of self-focused attention, in the experiments reported in Chapters 6 and 7, have revealed some consistent effects. These are partly dependent on the nature of the relations between groups. It seems, for example, that highly private self-aware people are sensitive to threats to intergroup distinctiveness. This result matches those of McCormick (1979) and of Froming and Carver (1981), who found that higher private self-consciousness was associated with increased sensitivity to threats to interpersonal distinctiveness. While the privately self-attentive person shows reactance or rejection of similarity, the publicly self-attentive person may actually desire similarity (cf. Fenigstein, 1979). These findings match those of Froming and Carver (1981), who found that

public self-consciousness led to more conformity as the difference between subjects' and confederates' estimates of a number of pre-recorded clicks increased.

Theoretical and research questions

The data from this experiment give rise to a number of further issues. The first of these is how well a distinction between self-definition and self-presentation serves to explain intergroup behaviour. Identification is a central process in Tajfel and Turner's (1979) and Turner's (1982) account of intergroup behaviour. Yet it has received very little attention from researchers on intergroup relations. A social identification is a self-definition as a member of a group. Therefore, one way of finding out about the role of self-definition in intergroup behaviour would be to look at the extent to which individuals identify with their group. Recent work by Brown and his colleagues (Brown et al., 1983) has emphasised the utility of such an approach.

The possibility that intergroup behaviour can be self-presentational in nature has been subject to neither theoretical nor empirical test. Arkin (1981) has mentioned that self-presentation may differ depending on whether or not the interactant is an outgroup or ingroup member. St. Claire and Turner (1982) have raised the possibility that social desirability effects may underlie minimal intergroup discrimination. Despite these hints,no one has offered a theoretically coherent account of how self-presentation might impinge on intergroup behaviour. From the point of view of self-presentation theorists (e.g. Jones and Pittman, 1982), a crucial determinant of social behaviour would be the nature of the audience. Therefore the manipulation of ingroup or outgroup presence may reveal the different requirements for self-portrayal which operate in intergroup behaviour.

A final issue is how the disposition to attend to the private or public aspects of self interact with feelings of ingroup identification and audience presence. Surprisingly, such interactions are rarely looked for or investigated in self-attention research. For example, in the Carver and Humphries (1981) studies, one experiment exposed subjects to a video camera while another used dispositional public self-consciousness to examine the effects of self-portrayal. Other audience studies used either a mirror or dispositional private self-consciousness, but not both (e.g. Froming and Carver, 1981). This may either reflect the existence of unreported interactions which do not fit into the theory, or the unwillingness of researchers to tackle the rather tricky conceptual issues. For example, what happens when the highly private self-conscious person finds him or herself in the presence of an audience? A related problem concerns the effects of public and private self-consciousness when the two are either both high or both low. It is not clear why the effects in these two cells should be so similar (both in the present and in the minimal group study). One possibility is that the two types of self-focus cancel out one another's effects rendering behaviour similar to that when neither is present.

In conclusion, the data presented in this chapter provide useful support for those from the minimal group study. The measures of dispositional self-consciousness reported in the present chapter bore a closer approximation to Fenigstein et al.'s (1975) Self-Consciousness Scale than did the scale for the minimal group subjects (particularly the public scale). In addition, the cell sizes were considerably larger. It is interesting that simple effects of self-focus were much the same in the two studies. However, each type of self-consciousness appeared to have different effects depending on the relations between groups in the present study. While it seems reasonable to surmise

that private and public self-focus increase self-regulation in terms of self-definition and self-portrayal, respectively, it is important to attain a clearer understanding of how these factors might influence intergroup behaviour. For this reason, the experiment to be reported in the next chapter manipulated audience presence and took into account identification with the group, in addition to using self-consciousness measures.

NOTES

1. Further evidence that status similarity seemed attractive to high privates but not to lows comes from a non-significant Status x Private interaction on evaluative bias ($F_{2,154} = 2.69$, $p < .08$). Here the highs show least bias against the equal status outgroup, whereas the lows show most bias against that group (see Appendix D4).

2. The test was printed on a sheet with a dotted line down the middle. Each question required two answers (one on each side of the line); for example, by completing the sequence: _ 4 10 18 : 28 40 54 _. In the competition condition each school was ostensibly to complete a different side of the questionnaire. The school with most correct answers won. In the co-operation condition the pupils from the outgroup were ostensibly going to complete the right hand side of the questionnaire after the subjects had completed the left. The greater the number of questions answered correctly on both halves the more prize money both schools would win.

CHAPTER 8

THE AUDIENCE AND IDENTIFICATION: A PUBLIC SCHOOL EXPERIMENT

INTRODUCTION

In this chapter the various themes of the preceding chapters will be brought together and the role of each in concert with the others examined. The experiment to be reported represents an attempt to embody the diverse theoretical and methodological considerations considered thus far within a single design.

Chapters 6 and 7 reported experiments which used artificially created groups. The subjects were anonymous and inconspicuous to other participants, and they had little information about how other ingroup or outgroup members would behave. Even in the experiments reported in Chapter 5 subjects were isolated and their behaviour was accountable only to the experimenter.

Those rather sterile conditions are probably well suited for testing hypotheses about subtle shifts of attention and group behaviour. They have high internal validity (Campbell and Stanley, 1966) and, although they lack mundane realism, Turner (1981b) has argued that experimental realism (cf. Aronson and Carlsmith, 1968) 'is more important than mundane realism' (p. 25) for the purposes of hypothesis testing. It also seems likely, however, that certain theories cannot be tested outside a wider social context[1].

The thrust of Tajfel's (1981) work on intergroup relations stresses that we cannot conceive of groups as isolated units - they exist in relation to other groups. Furthermore, groups are socially constructed and maintained (Tajfel, 1978b) over time. Many of the concerns of Tajfel's theorising depend upon his understanding of groups as socio-historical entities. To remove the history must therefore limit any

view of intergroup relations as dynamic. Experiments 'in a vacuum' (Tajfel, 1972) can only tell us so much about social psychological processes. Despite the generalisability of the findings from these experiments, their usefulness is limited by their ahistorical approach.

The minimal group paradigm has been very useful in the development of social identity theory (Turner, 1981). On the other hand, the limitations of the minimal group method may be partly responsible for the direction taken by Turner (1981, 1982). He treats identity, or a self-image, as a momentary phenomenon which is activated by salience cues. The minimal group paradigm is potentially capable of providing evidence to support this view. However, an equally persuasive account of social identification is that delineated by Tajfel (1974, 1978, 1981), who characterises it more as a psychological interpretation of socio-structural variables and the location of self in relation to these. For Tajfel it would not make sense to explain an individual's desire for social mobility (to leave the ingroup for a preferable alternative) purely in terms of momentary negative self-images. Likewise, social belief structures entailing social change (in the position of the ingroup) or creativity (in defining the ingroup) cannot depend on the situational salience of social identity. A more meaningful way to explain these variations in intergroup behaviour may be in terms of the valence of peoples' identification with their groups, and the strength of that identification. Strength and valence are conceptually independent. Valence merely refers to the question of whether the person treats membership of the group as a positive, neutral or negative contribution to the self-concept. Strength refers to the subjective importance of that contribution. It seems reasonable to suggest that it would be very difficult indeed to construct an experimental analogue of well established real-group identifications.

The experiment to be reported therefore used both a real ingroup and a real outgroup, with a history of intergroup relations which could provide a basis for identification. Rather than trying to manipulate differentially salience of social identity as a momentary self-image this was assumed as 'given', and subjects' strength of ingroup identification was used as a more sensitive predictor of their behaviour. To put this in another way, the context was designed to make subjects 'aware' of their group membership, and the 'value and emotional significance' attached to it was taken as the barometer for intergroup behaviour (cf. Tajfel, 1978; Tajfel and Turner, 1979).

Identification has been highlighted as a process of central importance in intergroup behaviour. However, much intergroup behaviour occurs in the presence of others. The normative constraints imposed by the audience may or may not be concordant with the behaviours specified by one's social identity. Hence, there may at times be a tension between self-definition and self-portrayal. The purpose of the present study was to examine these issues by having subjects rate their own and an outgroup school under the apprehension that their responses would be shown to members of their own, the outgroup or neither school.

Any effects of audience presence should reflect subjects' self-presentational goals, while any effects of pre-established identification with the school should reflect their self-definitional goals. These two factors (audience presence and identification) will now each be given closer consideration in turn.

Audiences and self-presentation

So far this thesis has only paid limited attention to the concept of self-presentation. In Chapter 5, it was suggested that the attenuating effects of the self-attention manipulation may have been due to subjects'

desire to present themselves as fair or nice people. In Chapter 6 it was proposed that dispositional attentiveness to the public aspects of self increased subjects' tendencies to describe their own behaviour in ways that might increase their social attractiveness. In Chapter 7 there seemed to be evidence for the idea that such persons placed a high value on similarity (and hence social attractiveness, according to some theorists). They tried to behave in a similar way to the outgroup on the test, and were more attracted to already similar outgroups in general. All of these interpretations of the data have been fairly post hoc. What is needed now is a theoretical basis for a priori statements about self-presentation in intergroup behaviour. In terms of self-attention theory an important distinction is that between self-definition and self-presentation since behaviour serving each may differ. However, the theory does not provide a model of the self per se, and this thesis has used social identity as the self-definition for enquiry. Since self-attention theory does not have a clear model of the standards associated with the public self it seems appropriate to borrow or deduce these from theories of self-presentation. It should be noted, however, that social identity theory and self-presentation theories hold slightly differing views of motivation.

Jones' (1964) view of the motive for ingratiating behaviour was that it was 'illicitly designed to influence a person concerning the attractiveness of one's personal qualities' (Jones and Wortman, 1973, p. 2). Ingratiation can take the form of conforming to (Gergen and Wishnov, 1965) or flattering (Jones, Gergen and Jones, 1963) the other person, as well as boasting about one's own virtues (Schneider, 1969). However, such actions may be too obvious and may cause the other person to shy away. Jones and Pittman (1982) elaborated this model and suggested several other self-presentational strategies. These include intimidation

and self-promotion (Quattrone and Jones, 1978), taking exemplary positions on things, and supplication - adopting a helpless role. Whatever method is used, the underlying goal is 'the augmentation or protection of the strategist's power to influence and control his social environment' (Jones and Pittman, 1982, p. 250).

More recently, Arkin (1980, 1981) has drawn a distinction between acquisitive and protective self-presentation. The former is the same as that discussed by Jones and Pittman. However, the latter involves the use of self-handicapping strategies (Jones and Berglas, 1978) in which the person deliberately understates his or her capacities so that he or she is less likely to fail (publicly) relative to his or her own claims. Another example is where one handicaps oneself (e.g. by drinking a lot the night before giving an important conference paper) in such a way that any failure is blamed on the handicap but any success is attributed to oneself.

Another strategy which has received attention is that of Basking in reflected glory, or BIRGing as it is called (Cialdini, Borden, Thorne, Walker, Freeman and Sloan, 1976), examples of which include name-dropping and incorporating successful groups or teams into one's self-image. These more recent ideas seem to suggest that self-esteem is implicated in self-presentation; we seek power or social approval because it enhances self-esteem (Baumeister, 1982a). As noted by Tedeschi and Norman (in press, 1984), and Baumeister (1982b), behaviour to an audience may involve self-presentation in order to raise self-esteem <u>via</u> social approval, whereas behaviour without an audience may be more directly self-serving (Weary and Arkin, 1982; Zuckerman, 1979). In any case, behaviour will be directed towards gaining social power (see Tedeschi and Norman, in press, p. 42).

A general principle which can be distilled from these ideas is that

people will strive to please the audience if this will have positive consequences, or avoid negative consequences for themselves. However, even if this principle holds for interpersonal behaviour, and personal identity, it is obvious that things are more complicated where social identity is concerned. Turner (1982) has argued that ingroup bias enhances self-esteem (Oakes and Turner, 1980). The evidence is almost entirely drawn from studies in which the individual's behaviour has not been visible to outgroup members. Hence there has rarely been any possibility of a conflict between gaining self-esteem by enhancing self-definition and gaining it by presenting oneself in a desirable way. Stephenson's (1981) work on negotiations points out some of the dilemmas involved when members of different groups come into contact; it is advantageous to be liked by one's opposite as well as to win for one's group. In fact, industrial negotiations are a good example of self-presentational behaviours because the interactants are motivated to gain social power for their groups through strategic interpersonal behaviour.

The conclusion to be drawn from the discussion so far is that audiences influence behaviour (Zajonc, 1965) and that the nature of the audience determines how we react (Carver and Scheier, 1978; Bond, 1982). For intergroup behaviour the audiences may contain members of the ingroup or of the outgroup, and the question is how people behave under these circumstances. Some hypotheses relating to this issue will be advanced later.

Identification, referent informational influence and reference group behaviour

Having argued that the consideration of real groups and real social identities will shed light on important issues in the social psychology of intergroup relations, it is now necessary to specify what the effects

of identification might be. Turner (1982) assumes that identification with a group leads to self-stereotyping in terms of that group's criterial attributes. The need for positive self-esteem 'motivates a search for, and the creation and enhancement of, positive distinctiveness for one's own group' (p. 34). In other words, greater identification should be associated with greater intergroup differentiation and ingroup bias.

A problem for the present experiment was to disentangle the influences of self-definition (identification) and self-presentation in intergroup behaviour, since it is quite conceivable that intergroup discrimination could satisfy both factors simultaneously. One way of achieving a distinction is to build on the differences between the effects which are theoretically associated with social identification and with reference group behaviour.

In Chapter 2 it was suggested that reference group theories (e.g. Newcomb, 1943; Kelley, 1968) bore certain resemblances to social identity theory. Newcomb's (1943) distinction between positive and negative reference groups may be equivalent to Sumner's (1906) and later Tajfel's (1974) use of the terms 'ingroup' and 'outgroup'. Kelley's (1968) distinction between comparative and normative reference groups may bear some relation to Turner's (1982) conception of the components of referent informational influence. According to Turner (1982) the vehicle of social influence is social identification. Specifically, conformity to ingroup norms increases as one's group membership becomes salient. One is motivated to support attributes, opinions or actions that are criterial attributes of group members. For Turner, mere 'group pressure' or 'surveillance by fellow group members' only create 'normative influence' to conform to the behaviour of other group members. Normative influence is insufficient to explain

social conformity without direct interpersonal influence.

Following Turner's analysis, referent informational influence should be reflected by a positive correlation between ingroup identification and adherence to ingroup criterial attributes, irrespective of normative pressures. In contrast, simple normative reference group influence should be reflected by a positive correlation between the observability of one's behaviour by a group, and conformity to that group's norms. Moreover, this effect should enhance acceptance of positive reference group norms and rejection of negative reference group norms. Specifically, identification should lead to greater endorsement of ingroup attitudes, irrespective of audience presence. In contrast, the more self-presentational normative influence should lead to greater endorsement of attitudes only when other group members are observing. (It is not entirely clear, as yet, whether only ingroup attitudes will be more strongly endorsed - cf. Carver and Humphries, 1981 - or whether the attitudes of whichever group is observing will be endorsed most strongly.)

Self-consciousness

A third issue is how dispositional self-consciousness might affect the behaviour of real group members. One set of predictions concerns the consistency of behaviour. Much of the research on private self-attention and private self-consciousness suggests that it increases intra-individual consistency (e.g. Pryor et al., 1977). However, the question arises as to whether it only increases consistency to personal norms or whether it increases adherence to all behavioural standards (Diener and Srull, 1979; Gibbons and Wright, 1983). It has also been suggested that,among internal cues, affect (and perhaps, therefore, identification) are more powerful than attitudes (Gibbons, 1983; Wicklund,

1979, 1980) and hence greater private self-consciousness may not affect attitudinal consistency when identification is strong. Gibbons (1983) also argues that impression management is subordinate to the desire to 'report accurately about the self and to avoid discrepant behaviour' (p. 528) when privately self-aware. He cites evidence from two experiments by Gibbons and Gaeddaert (1982) in which self-focused subjects reported that the effects of a (bogus) drug were weaker than did non-self-focused subjects, despite the fact that by doing so they created less favourable impressions. The general conclusion to be drawn from these findings is that private self-focus eradicates self-presentational concerns.

Public self-consciousness is supposed to increase self-presentational concerns (Froming and Carver, 1981; Scheier and Carver, 1981). Public self-consciousness may lead to reduced intra-subject consistency, but only to the extent that different social standards present themselves at different times (Snyder, 1979; Snyder and Swann, 1976). Furthermore, there is no theoretical reason why an individual may not choose to present him or herself as being self-consistent to any given audience. The result of this is that private self-consciousness may increase cross-situational consistency, but public self-consciousness may increase within-situation consistency (and cross-situation inconsistency). For private self-consciousness the attitudinal consistency may be inhibited by strong affect, whereas the effects of public self-consciousness should not be influenced by affect.

Another set of predictions concerns the influences of different types of self-consciousness under different experimental conditions. It seems likely that high public self-consciousness will elevate the use of self-presentational strategies, as might be reflected by greater sensitivity to normative influence and less to identification. It follows

that subjects who are high in public self-consciousness may respond more to the presence and nature of audiences than will lows (cf. Buss, 1980). High private self-consciousness may elevate self-definitional concerns, as would be indicated by greater sensitivity to identification and referent informational influence, but reduced sensitivity to audience presence.

One further possibility (discussed in greater detail below) is that the presence of an outgroup audience may remind subjects of the intergroup nature of the situation, thereby rendering their social identity more salient (cf. Doise and Sinclair, 1973). If this is the case, then ingroup biases may be at their greatest when the audience is composed of outgroup members. The hypotheses for this experiment are numerous, and therefore are set out formally, below, for ease of reference[2].

HYPOTHESES

1. Following Turner's (1982) assumption that intergroup behaviour is primarily self-definitional:

   a. Subjects who are more highly identified with their school will express more bias in its favour than will those who are less identified.

   b. Since referent informational influence is operating, agreement with ingroup statements and disagreement with outgroup statements should be greater in highly identified subjects than in less identified subjects, irrespective of condition.

   c. Highly private self-conscious subjects will express more ingroup bias than lows, owing to their greater awareness of their social identity, although this may interact with strength of identification.

   d. Highly private self-conscious subjects may either be more susceptible to referent informational influence than lows (as in 1b) or they may merely remain more attitudinally consistent between pre-test and experiment than lows (Gibbons, 1983).

2. Following Carver and Humphries' (1981) assumption that group behaviour is self-presentational, and will be designed to please the audience:

   a. Subjects will display more ingroup bias in the presence of an ingroup audience than with no audience or an outgroup audience.

   b. Since normative influence is operating subjects will express greater agreement with statements reputed to represent ingroup attitudes when an ingroup audience is present, but express greater agreement with outgroup attitudes when the outgroup audience is present.

   c. While highly public self-conscious subjects may generally be more biased than lows (see pre-test results,below), this effect may interact with the nature of the audience.

   d. Highly public self-conscious subjects will prove more susceptible to normative influence than will lows, resulting in a Condition x Public interaction based on 2b above.

3. Following Doise and Sinclair (1973), Turner (1978b) and Skinner and Stephenson (1981, and see below), it is predicted that if subjects anticipate an outgroup audience the intergroup distinction will be rendered more salient. Hence the presence of an outgroup audience will produce more differentiation than either no audience or an ingroup audience.

   However, this, primarily cognitive, effect may be moderated by subjects' desire to engage in self-presentation and by the strength with which they identify with their ingroup.

4. Self-esteem, measured at pre-test, will correlate with intergroup differentiation, either negatively (Oakes and Turner, 1980) or positively (Brockner, 1979a, 1979b), depending on whether the lack of self-esteem motivates discrimination or greater self-esteem is necessary for conflict discrimination, respectively.

Hypotheses 1 and 2 may be regarded as rivals in so far as they weight identification and self-presentation differently. Also Hypothesis 3 assumes that bias will be at its height in the presence of an outgroup audience, whereas Hypothesis 2 states that an ingroup audience will elevate bias most of all. It is most likely, however, that all of the hypotheses have some validity, and that none of them

will be totally refuted here.

Methodological considerations and creation of dependent measures

a. The experimental setting

Kent has a selective secondary education system. One effect of this is that, in addition to Grammar and Secondary Modern schools, a Public school system flourishes. Within the Canterbury area there are three public schools out of a total of eight secondary schools. These schools, and types of schools, were selected as the groups for the experiment to be reported. In particular, the subjects were initially drawn from one large and long established public school[3]. This school (MIXCOLLEGE) shall be referred to as 'MC' from now on. Because the experiment was to involve a fairly lengthy battery of questionnaires it was decided that sixth form students should serve as subjects.

b. Previous intergroup research involving public schools

In designing the experiment it was decided to draw upon, and modify, two earlier studies - those by Hewstone, Jaspars and Lalljee (1982) and Skinner and Stephenson (1981).

Skinner and Stephenson (1981) proposed that 'polarisation of opinions held by members of a group represents an attempt to establish a more distinctive identity for that group' (p. 49). This idea, which matches Turner's conception of referent informational influence, was tested using three schools. Subjects from two comprehensive schools and one direct grant school were asked to complete an attitudes-to-school scale, once 'as a typical member of a Nottinghamshire comprehensive/ direct grant high school would' (other group) and once for themselves. The order of self/outgroup completions was reversed for half of the

subjects[4]. When completing the scale as an outgrouper might the direct grant school subjects characterised comprehensive students as very anti-school, whereas the comprehensive subjects characterised direct grant students as very pro-school. This effect was exaggerated if subjects completed the scale for the outgroup after doing it for self. Skinner and Stephenson explained this last finding by saying that the salience of intergroup comparison was enhanced by reminding subjects of the distinction between self and outgroup.

One problem with this study was that, because the comparisons involved were self/outgroup and not ingroup/outgroup, it is difficult to be sure whether the polarised perceptions of outgroup attitudes reflected attempts to gain positive distinctiveness for the ingroup, or merely a cognitive effect of categorisation[5]. The interpretation of their findings is further complicated by the fact that the direct grant school was named to the comprehensive subjects, whereas the reverse was not true. Attitudes to specific outgroups may vary tremendously (Brown, Wade, Matthews, Condor and Williams, 1983) and are unlikely to be equivalent to attitudes to outgroups in general[6]. In sum, Skinner and Stephenson's study is interesting and informative but is methodologically flawed. One additional measure which could surely have informed them more fully would have been that of ingroup identification.

Hewstone, Jaspars and Lalljee (1983) also investigated comprehensive versus public school relations. The two groups were assumed to have a 'history of intergroup conflict' (p. 244) and this should have been reflected in the pupils' 'social representations' of the two groups (Herzlich, 1973; Moscovici, 1981). In fact, subjects were asked to write a twenty minute essay on 'similarities and differences between public and comprehensive schoolboys'[7].

On the basis of this evidence, Hewstone et al. made the assumption that there was 'enduring mutual antagonism' (p. 249), and proceeded to ask a second set of subjects from each school to make various attributions and evaluations of each of the groups. While heralding the importance of investigating attribution 'at the intergroup level' (p. 248), their method of eliciting such attributions was somewhat dubious. Although they used Taylor and Jaggi's (1974) work as a starting point, Hewstone et al. (1982) failed to take into account the possibility that attributions about individual group members may not be equivalent to attributions about the group as a whole (cf. Taylor and Doria, 1981; Taylor, Doria and Tyler, 1983). Hewstone et al. provided specific background information about individual public school and comprehensive school pupils and then asked subjects, first, to rate the character on 5 traits, and, second, to attribute 4 successful or unsuccessful A-level grades to luck, task difficulty, effort or ability (Weiner, 1974). Thus it was unclear whether subjects were using an individual or group level of explanation in this task. This problem rendered the results highly susceptible to post hoc interpretations, where the ethnocentrism (Sumner, 1906) of attributions could always be demonstrated at one or other of the levels[8]. This same confusion also afflicted the third part of Hewstone et al.'s (1982) study where ascription of negative and positive traits to the two groups did not reveal ingroup biases, probably because 'subjects also made self-ratings' (p. 262)[9].

From the Skinner and Stephenson (1981) and the Hewstone, Jaspars and Lalljee (1982) studies it is possible to draw several conclusions about the methodology appropriate for the present research. First, it should emphasise the intergroup level of behaviour and should not mix individual and group components within the same task. Second, the relevance of the outgroup should be ensured a priori, rather than merely

resting on the researcher's assumptions. One problem with the earlier studies included the classification of comprehensive schools as 'consensually inferior' (Hewstone et al., 1982, p. 263), whereas the comprehensive/public comparison may well have been consensually irrelevant to the pupils concerned. Subjects may well have been able to recall and accentuate social stereotypes of the two kinds of school (Doise, 1979) without social identity being influenced. In the present research one important reason for ensuring the relevance of the outgroup is in order that the effects of social identification can be observed.

Third, attribution has been accorded importance in both the intergroup literature (e.g. Hewstone and Jaspars, 1982) and the self-awareness literature (e.g. Gibbons, 1983). The former predicts intergroup differentiation on relevant dimensions. Hewstone et al. restricted the dimensions to ones which could impinge on any individual. In order to examine whether these affect intergroup explanations two alterations were introduced in the present research. Explanations were required for success and failure of undifferentiated members of the groups, and properties of the group were offered as additional dimensions of explanation.

Finally, separate evaluations of ingroups and outgroups cannot always be taken to represent intergroup behaviour. Therefore, the present research asked subjects to place the two groups on the same scale for each item. This was to increase the likelihood that the ratings reflected intergroup differentiation via specific intergroup comparisons and not via comparisons to self or to some unknown other groups. The content and design of the main experiment was based largely on the results of a pre-test (described below).

METHOD

Subjects

One hundred and forty-two sixth form pupils from a public school (hereafter referred to as MC) in Kent served as subjects. Of these, 99 males and 35 females were pre-tested and 95 males and 30 females participated in the main experiment. 91 males and 27 females were present at both sessions.

PRE-TEST

The purposes of the pre-test session were (1) to obtain individual differences information prior to the experiment; (2) to find out which schools were felt to be most relevant as comparison groups; and (3) to get responses to attitude statements which would be presented again in the main experiment in order to test hypotheses about referent informational influence, self-presentation, and self-consistency. Subjects were presented with an envelope which contained two booklets. The first contained four A5 pages. Pages 1 and 2 asked subjects to rate the strength of their agreement with 10 statements about schools on 7-point scales. Some of the items were based on those used by Skinner and Stephenson (1981) relating to discipline, the value of education, and so on. Three statements were incorporated as a potential measure of identification with the school. These will be discussed in greater detail below. The third page listed 8 local schools and asked subjects to say with which two (in order of preference) their own school was most often compared, with which they felt most competitive, which they most wanted to beat at examination results and which were most similar to their own. Finally, subjects were invited to write in their own words how their own school differed from the two which were most similar to it. These questions were used in order to

ascertain which dimensions of intergroup comparisons were most relevant (see Appendix E1). The second booklet comprised the Eysenck Personality Inventory (Form A), the Self-Consciousness Scale and the Rosenberg Self-Esteem Scale. Self-consciousness and self-esteem have theoretical relevance and the EPI was included for purposes described in Chapter 4.

The research was introduced as 'trying to find out about how you think about yourselves and what you think about school and education'. All subjects were gathered in a large theatre in the school and were spaced apart from one another. The session lasted approximately 30 minutes. At the end of the session subjects were asked to return the booklets to their envelopes and to write their name, sex and school year on the envelope. Absolute confidentiality was assured. They were then informed that the experimenter would be returning to tell them more about the research later that term.

Pre-test results

Only three of the eight schools were regularly cited (see Appendix E2). Of these the most frequent were two public schools and the third was a grammar school. Examination of the first/second choice frequencies of the two public schools showed that one (BOYCOLLEGE, hereafter referred to as 'BC') was most often compared to, invoked most competitiveness and was regarded as most similar. This in itself is an interesting result (cf. Brown and Abrams, 1982)[10]. There were no significant variations due to sex or school year of subject. Thus, it seemed sensible to adopt BC as the comparison school in the main experiment. In fact, BC is located less than 100 metres from MC on the opposite side of a main road. Both schools are housed in majestic old buildings. The main difference between them is that MC is mixed sex, while BC is all male at the sixth form level (see Chapter 4). This difference was

not mentioned by subjects in the open ended part of the pre-test, though.

The attitude statements were entered into a factor analysis in order to see whether the identification items formed a coherent factor. An oblique rotation produced four factors as shown below in Table 8.1.

Table 8.1

Factor analysis (SPSS, oblique rotation) of pre-test data from MIXCOLLEGE (significant loadings only)

	FACTOR			
	1	2	3	4
Eigenvalue	3.21	1.48	1.12	1.02
Variance (%)	32	15	11	10
	Ties (.79)	Care (-.76)	Fees (.64)	Industry (.33)
	Pride (.73)	Choice (.33)		Degree (.50)
	Belong(-.94)			Adult (.45)
	Strict(-.38)			Choice (.38)

The loadings are given in brackets. The first factor is clearly identification with the school. The modal responses for the three strongest loading items were all one point from the most favourable extreme of the rating scales, although the means tended to be within one scale point of the mid-point. The second factor represents caring about education. The third is the relative status of state and public schools. The final factor seems to reflect an adult/future orientation. All of the items were subjected to MANOVA, first by Sex and then by Public and Private self-consciousness, based on median splits (see Appendix E3). The purpose of this was to detect any baseline differences which might influence the results of the main experiment.

The effect of sex was significant (Multivariate $F_{10,121} = 2.41$, $p < .05$). Females reported feeling stronger ties with the school but

agreed less that education in fee paying schools is superior to that in state schools relative to males.

There were significant main effects of both self-consciousness dimensions, but no interactions between them. On the three identification measures, highly Public self-conscious subjects reported stronger identifiation than lows. They also cared more about their education and favoured fee paying schools more than did lows (Multivariate $F_{10,121} = 3.24$, $p < .001$). Private self-consciousness seemed to be more relevant to items about personal autonomy. High Privates felt the school was less strict, felt choice about place of education was more important, cared more about their education and felt more pride in their school than did lows (Multivariate $F_{10,121} = 2.29$, $p < .05$). In sum, both forms of self-consciousness were related to positive regard for school but in slightly different ways.

The pre-test showed that the assumption of intergroup rivalry between public and comprehensive schools is not well founded in the present case. The most relevant outgroup was the most similar school. It also revealed that there is a clear identification component of school attitudes and that Private and Public self-consciousness affect the expression of these attitudes under confidential conditions. The main experiment is concerned with the effects of ingroup and outgroup audiences on intergroup behaviour, and how identification and self-consciousness interact with these conditions.

MAIN EXPERIMENT METHOD

As already stated, the dependent measures were based partly on pre-test responses and partly on the Skinner and Stephenson (1981) and Hewstone et al. (1982) experiments

Design

A 3 (Audience condition) x 2 (Sex) design was adopted. Subjects were randomly allocated to one of the three conditions: Outgroup audience (OUT); Confidential (CONF); Ingroup audience (IN). The experimenter was blind as to which condition subjects were in. With approximately 40 subjects per condition (see Table 8.2), it was possible to incorporate two levels (high/low) of pre-tested Public (PUB) and Private (PRIV) self-consciousness into the design after the experiment.

Table 8.2

Design

	Ingroup	Confidential	Outgroup	Row Total
Males	33	32	30	95
Females	12	10	8	30
Column Total	45	42	38	125

Dependent variables

These were contained within two booklets (see Appendix E4). Booklet 1 had a blue cover sheet and contained four A4 sheets. The first page asked subjects to rate the two schools on each of 14 characteristics by placing an 'X' for own school and an 'O' for other school on a 9 cm. line representing a continuum from 'very bad' to 'very good'. The items included social, moral and academic aspects of school life. These items are essentially EVALUATIVE because they are rated purely in terms of how good or bad each school is rather than in qualitative terms. The second page, on the other hand, could be described as being TRAIT ratings[14]. Subjects were again asked to use 9 cm. lines, but this time there were 16 bipolar dimensions (such as rich/poor, formal/informal, lively/dull). These items therefore allowed subjects to differentiate the two groups on affective dimensions

rather than just evaluatively. The items for both of these pages used expressions or terms quoted from pre-test open ended responses. They were later coded as 9-point scales. Responses falling on a division were scored by the toss of a coin.

The third page presented seven of the 10 ATTITUDE statements from the pre-test, again to be answered on a scale of 1 (strongly agree) to 7 (strongly disagree). Three of these were the identification factor items. The other four were items on which the mean score had been more than 1 point away from the scale midpoint of 4.

The fourth page (REFERENCED statements) informed subjects that earlier research had shown what pupils at the two schools think. Six statements were presented, of which the source of 3 was specified as MC and 3 as BC pupils. Subjects were again asked to indicate the strength of their agreement with each item. In fact, two of the items linked to MC and one of those linked to BC had been asked in the pre-test. These were selected because the mean responses had been less than 1 point from the scale midpoint, leaving plenty of scope for the association to effect a shift in subjects' positions.

The second booklet contained ten A5 pages. These were randomly ordered,with the exception of the first page. The booklet had a green cover. Seven of the pages asked subjects to answer just one question by placing an X on a 9 cm. line. The questions were how competitive subjects felt towards BC; how friendly they felt towards BC; how much they would like BC pupils if they were at BC; how much a BC pupil would like those at MC if he were there; how similar the two schools are; how similar to one another pupils within MC are; and, how similar to one another the pupils within BC are.

Two pages invited subjects to attribute the good or bad performance of pupils at each school to luck, effort, ability, task difficulty, type

of parents and quality of teachers. A space was also left for any other explanations subjects wished to offer. These ATTRIBUTION pages differ from the approach of Hewstone et al. in that the attribution is to 'some pupils who do very well/badly at A levels and other exams.' rather than to a specific actor. Hence, it was hoped, attributions would be made at the truly intergroup level and subjects were less likely to make use of personality as an explanation. Furthermore, subjects were asked to place both schools on the same scale, enabling them to distinguish between general explanations (by rating both schools the same) from specifically group based ones (by differentiation). Ratings were made on a 7 cm. line, with 'not at all' (1) and 'completely' (7) at opposite ends for each potential attribution.

The final page was a simple inverse ratio 9-step reward matrix, where subjects could award £80 to MC and £0 to BC at one extreme and vice versa at the other. The 'fair' point is £40 to each school. This page was left until last so as not to commit subjects or create inequity which might influence other responses.

Procedure

Subjects were gathered together in the same theatre as was used in the pre-test session and were reminded of the research topic, 'Schools and their pupils in Kent'. It was explained that MC and BC were of particular interest at the time and that the research was being conducted at both schools. Subjects were each handed an envelope which contained their instructions on an orange coloured A4 sheet of paper, and the two booklets of dependent measures. There were three different versions of the instructions (corresponding to the 3 conditions; see Appendix E4) and, since the envelopes were randomly ordered, allocation of subjects to condition was random. Once all subjects were seated and

spaced apart from one another, they were asked to read the instruction sheet carefully. The 3 conditions were manipulated as follows:

Following the sentence, 'In conducting research we feel that it is important to give as much reassurance as possible to the people involved', subjects read that when they had completed their booklets these would be kept:

1. (OUT and IN conditions) 'to show some of the other pupils taking part', or

2. (CONF condition) 'completely confidential'.

They were then assured that:

'None of the MC and only the BC pupils will see what you have written' (OUT condition), or

'Only the MC and none of the BC pupils will see what you have written' (IN condition), or

'None of the MC and none of the BC pupils will see what you have written' (CONF condition).

These instructions were typed so that all sheets appeared the same and no suspicions were aroused due to subjects seeing differing sets of instructions. To ensure this, subjects were asked to replace the instruction sheets back in their envelopes once they had read them. (This also allowed the experimenter to be sure of each person's condition.)

Subjects were then instructed to work through the two booklets in order. Each booklet cover required the subjects to write their name, sex and year; both to maximise accountability in the IN and OUT conditions and to enable pre-test and experimental data to be used together. When all subjects had completed the booklets and put them in the envelopes a sheet of manipulation check questions was administered. This merely asked who would see the booklets, how much subjects had enjoyed and taken seriously the research, what they thought it was about and how much they

had tried to support MC, BC, both, let MC win over BC or adopted no particular strategy (SUPPORT items).

Finally, the Self-Consciousness Scale was handed out. Once subjects had completed this, all sheets of paper were sealed in their envelopes, which were then handed in. Subjects were then debriefed. The entire session lasted a little under one hour.

RESULTS

Independent variables

The data were initially subjected to MANOVAs of 4 types:

i. Condition x Strength of Identification;

ii. Condition x Private x Public Self-consciousness;

iii. Private x Public x Identification.

iv. Condition x Sex.

Analyses using other combinations of independent variables did not yield any new effects or remove those which are to be reported below. Before doing so, it is necessary to describe the independent variables, which are based on individual differences rather than on experimental manipulation.

a. Pre-tested Self-consciousness

The Private Self-consciousness Scale was found to have a reliability coefficient (alpha) of .54, and that of the Public Self-consciousness Scale was .74. As has often been found, the two subscales (PRIV and PUB) are positively correlated ($r = .32$, $n = 134$, $p < .001$). Subjects were divided into High and Low scorers, based on a median split for each subscale. The cell sizes for the PUB x PRIV x CONDITION design are given in Appendix E5.

b. Identification with own school

The identification variable was constructed by using the total score on the three pre-test identification items combined with the total score in the experiment on those same items. It was found that this produced the most reliable scale (α = .93). The correlation between pre-test and experiment scores on these total scores was r = .75 (n = 118, $p < .001$). The reliability analysis table for the scales is given in Appendix E6.

Unfortunately, and unexpectedly, pre-tested identification differed between experimental conditions, as did the combined score ($F_{2,117} = 4.43$, $p < .05$). A greater proportion of OUT condition subjects fell on the high side of the median split identification than on the low side. It was possible to remove this (random) bias by creating a 3 (Condition) x 2 (Identification) design, since the means of the HiIDENT cells do not differ between IN, CONF and OUT conditions. When the combined identification scores were entered into a 2 way (Condition x Identification) ANOVA, there was the inevitable significant main effect of Identification (Hi > Lo), but the effect of Condition was no longer significant, and nor was the Condition x Identification interaction[11] (see Table 8.3 below).

Table 8.3

Identification scores and Condition

a. CONDITION main effect

	Mean	n	MSe	F	p <
OUT	15.24	34	92.02	4.43	.05
CONF	21.77	39			
IN	20.04	45			

b. CONDITION x Identification (High/Low) interaction

CONDITION	IDENTIFICATION HIGH	(n)	LOW	(n)	Effect	df	MSe	F	p <
OUT	10.04	23	26.09	11	CONDITION	2	41.77	1.50	.30
CONF	10.75	16	29.43	23	IDENTIFICATION	1	748.92	267.92	.001
IN	11.95	20	26.52	25	C x I	2	43.66	1.56	.20
					ERROR	112	27.93		

Grouping of dependent variables

Because a large number of dependent variables was used, these were entered into the MANOVAs in the following groups:

Booklet 1:
- i. Good-Bad ratings for both schools (EVALUATIVE measures);
- ii. Bipolar ratings for both schools (TRAIT ratings);
- iii. ATTITUDE measures and REFERENCED items;

Booklet 2:
- iv. Intergroup orientation and reward (ORIENTATION measures);
- v. Success and failure (ATTRIBUTION items);
- vi. Self-reported (SUPPORT) strategies.

For i, ii and v and certain items from iv and vi, ingroup rating minus outgroup rating DIFFERENTIATION scores were computed and entered into MANOVAs in the groupings described here. Finally, three indices

of ingroup bias were computed, based on the likeability of the two schools, the homogeneity (stereotyping) of the two schools and in-outgroup support strategies. These were entered into a MANOVA as BIAS items. The MANOVA procedure provides a means of avoiding the problem of randomly produced significant univariate ANOVAs. Only if the Multivariate F is significant is it then legitimate to proceed to interpret univariate effects.

Ingroup favouritism

Before detailing the effects of independent variables it is important to stress that the ingroup biases were clearly expressed. Ingroup bias was significant on EVALUATIVE ($F_{14,86} = 17.80$, $p < .0001$), TRAIT ($F_{16,93} = 19.53$, $p < .0001$), ORIENTATION ($F_{2,111} = 23.74$, $p < 0001$) and ATTRIBUTION ($F_{12,96} = 3.30$, $p < .001$) items. Among the latter, subjects attributed ingroup success to good teaching more than outgroup success. Subjects also said they supported MC more than BC, and regarded BC pupils as more homogeneous than MC pupils (i.e. they stereotyped the outgroup more than the ingroup). Hence, the effects of independent variables occur against a background of concerted ingroup bias, invoked by intergroup comparison. The Multivariate and Univariate ANOVA tables from the repeated measure MANOVAs are shown in Appendix E7.

Condition x Identification analysis

a. Condition

There were two significant multivariate main effects of Condition. Among the ORIENTATION items ($F_{16,206} = 2.06$, $p = .01$) competitiveness, and thinking that BC pupils would like those at MC,was highest in the OUT condition, with the other conditions both weaker. On the BIAS items ($F_{6,218} = 2.38$, $p < .05$) there was greater ingroup bias in the OUT

condition than in the other two conditions (see Table 8.4, below).

Table 8.4

Significant multivariate effects of Condition (from Condition x Identification MANOVAs)

Variables	Wilk's Lamda	Items	(df)	MSe	F	IN	CONF	OUT
ORIENTATION (1=very much 9=very little)	.74	COMPETITIVENESS	2,111	5.73	6.07**	4.11	4.98^{a}	3.21^{b}
		HOW MUCH BC WOULD LIKE MC		3.23	2.83*	4.57	3.98	3.89
BIAS	.88	SUPPORT OFFERED TO INGROUP-OUTGROUP	2,111	2.97	3.96*	1.30	1.14	1.95
		PERCEIVED INTERGROUP LIKING		6.38	3.46*	-0.20	0.24	1.05

* $p < .05$
** $p < .01$

Means with different subscripts differ at $p < .05$ (Newman-Keuls).

b. Identification

There were significant multivariate effects of IDENT on EVALUATIVE ($F_{28,72} = 1.93$, $p < .05$), TRAIT ($F_{32,77} = 1.92$, $p < .01$), ATTITUDE ($F_{10,103} = 2.94$, $p < .01$), ORIENTATION ($F_{8,103} = 3.51$, $p < .001$) and BIAS ($F_{3,109} = 8.39$, $p < .0001$) measures. Highly identified subjects were more positive about both schools, but especially MC, than were lows. Highs also agreed more with certain attitude statements, felt more competitive, regarded MC pupils as less homogeneous and used strategies of supporting MC and trying to get it to win more than did lows. On the attitude statements, three of the four significant univariate ANOVAs were on the REFERENCED statements. Highs agreed more with one MC statement and one BC statement than did lows and agreed less with one BC statement than did lows. The middle one of these was the least

significant. However, none of these effects produced significant DIFFERENTIATION MANOVA effects, although the total TRAIT differentiation score was larger among highs than lows ($F_{1,101} = 4.52$, $p < .05$). These results are presented in Tables 8.5 and 8.6, below.

Table 8.5

Significant multivariate effects of identification on responses (from Condition x Identification MANOVAs)

MULTIVARIATE VARIABLES	WILK'S LAMDA	UNIVARIATE ITEMS	(df)	MSe	F	HIGH IDENT	LOW IDENT	BIAS
EVALUATIVE	.57	DOING WELL (MC)	1,99	2.20	5.05*	7.19	6.33	>
		PEOPLE (MC)		4.78	8.83**	7.10	5.66	>
1 = very bad		PEOPLE (BC)		4.58	7.26**	5.40	4.47	>
9 = very good		A LEVELS (MC)		2.88	10.44**	7.00	5.93	>
		MATHS. (MC)		3.76	8.48**	6.63	5.41	>
		MATHS. (BC)		2.72	7.02**	6.03	5.17	>
		MORALS (MC)		4.10	10.52**	6.10	4.76	>
		MORALS (BC)		3.08	7.95**	5.86	4.74	>
		DISCIPLINE (MC)		3.20	9.50**	6.03	5.00	>
		EXCITEMENT (MC)		5.18	9.37**	6.05	4.42	>
		EXCITEMENT (BC)		3.55	6.07*	4.41	3.58	>
		FUN (MC)		5.05	16.52****	7.14	5.12	>
		FUN (BC)		5.03	9.97**	5.52	4.12	>
TRAITS	.52	SOCIABLE (MC)	1,108	4.00	9.75**	2.81	4.12	>
		STUPID (MC)		3.24	4.63*	6.49	5.66	>
1 = trait		LIVELY (MC)		3.00	9.44**	2.81	3.75	>
9 = opposite		RICH (BC)		1.83	4.35*	3.63	3.14	?
		BROAD-MINDED (MC)		4.64	15.38***	3.93	5.61	>
		BROAD-MINDED (BC)		3.77	5.02*	4.78	5.74	>
		SNOBBISH (MC)		3.81	5.31*	6.12	5.28	>
		BORING (MC)		3.67	11.18***	6.37	5.10	>
		MATURE (MC)		4.50	5.18*	4.39	5.36	>
ORIENTATION	.79	COMPETITIVENESS	1,110	5.73	19.71****	2.97	5.14	>
1 = very much		PERCEIVED INGROUP HOMOGENEITY		4.11	11.08***	6.51	5.15	?
9 = very little								
SUPPORT STRATEGY		SUPPORT MC	1,110	1.95	24.09****	2.95	4.32	>
1=very much	.76	MAKE MC BETTER THAN BC		2.42	10.94***	3.64	4.76	>
9=very little								
BIAS	.81	SUPPORT MC-SUPPORT BC		6.61	9.02**	2.39	0.80	>
		INGROUP-OUTGROUP HOMOGENEITY		2.97	18.96****	-2.22	-0.66	>
ATTITUDE AND REFERENCED ITEMS	.78	FEE PAYING SCHOOLS	1,112	2.28	7.76**	2.15	2.98	>
1 = agree		PUPILS AS ADULTS (MC)		2.38	7.80**	2.59	3.41	>
7 = disagree		TOO STRICT (BC)		2.58	10.10**	4.98	3.98	<
		PUPILS RESPONSIBLE (BC)		2.11	3.92*	3.39	4.00	>

MC = ratings of MC
BC = ratings of BC

Table 8.6

Summed differentiation scores
ANOVA by Identification

ITEMS	MSe	df	F	HIGH IDENT	(n)	LOW IDENT	(n)
TRAITS	258.16	1,112	4.52*	22.78	(59)	15.29	(55)
EVALUATIVE	229.24	1,104	1.48	16.57	(54)	11.24	(51)
COMBINED	348.85	1,104	5.35*	18.89	(54)	13.78	(51)

For Tables 8.5 and 8.6:

* $p < .05$
** $p < .01$
*** $p < .001$
**** $p < .0001$

c. Condition x Identification

There were significant multivariate effects on the ORIENTATION ($F_{16,206} = 2.51$, $p < .005$) items and the TRAIT ($F_{64,154} = 1.56$, $p < .05$) items, as well as on the DIFFERENTIATION scores for TRAIT ($F_{32,186} = 1.56$, $p < .05$) items. These can be summarised as follows: LoIDENT subjects regarded MC as more heterogeneous in the IN than in the CONF or OUT conditions. In contrast, HiIDENT subjects regarded MC as equally heterogeneous in all conditions. On the ratings of BC heterogeneity the LoIDENT showed the same pattern as they did for MC. However, the HiIDENT subjects rated BC as more homogeneous in the IN than in the CONF or OUT conditions. To rephrase these data, when rating MC all HiIDENT subjects and LoIDENT subjects in the IN condition rated them as heterogeneous. LoIDENT subjects in the CONF and OUT conditions rated them as more homogeneous. When rating BC all subjects rated them as more homogeneous than they had MC, but this effect was strongest among HiIDENT subjects in the IN condition. On ratings of how much subjects thought they would like the pupils of BC if they were there

HiIDENT subjects were more positive than lows in the OUT and CONF conditions but less positive than lows in the IN condition. Similarly, when asked how friendly they felt towards BC HiIDENT subjects were most friendly in the CONF and least friendly in the IN condition, whereas these positions were reversed among LoIDENT subjects. On these measures then, it appears that identification has its greatest impact in the IN condition. The pattern is repeated on rating BC as boring (TRAIT item) - HiIDENT are least favourable and LoIDENT are most favourable in the IN condition. On one of the differentiation scores of the TRAIT items a similar pattern occurs. HiIDENT regard MC as relatively more broad-minded than BC in the IN condition, but among LoIDENT subjects the ratings are reversed - favouring BC. Thus the three MANOVA effects are consistent. These data are presented in Table 8.7 and Figure 8.

Table 8.7

a. Significant multivariate Condition x Identification interactions

MULTIVARIATE VARIABLES	WILK'S LAMDA	UNIVARIATE ITEMS	(df)	MSe	F
TRAIT	.37	BORING (BC)	2,108	3.04	2.74†
		FRIENDLY	2,110	3.67	3.85*
		HOMOGENEITY (MC)		4.11	2.98†
		HOMOGENEITY (BC)		3.95	3.54*
		LIKING FOR BC		3.25	10.16****
TRAIT DIF-FERENTIATION	.62	BROAD-MINDEDNESS		6.01	3.61*

b. Means for significant Condition x Identification Interactions

CONDITION	IN		CONF		OUT	
VARIABLE IDENTIFICATION	HIGH	LOW	HIGH	LOW	HIGH	LOW
BORING (1=yes, 9=no)	3.80	4.44	4.75	4.22	4.83	3.82
FRIENDLINESS (1=very,9=not)	5.60	4.08	4.44	5.39	5.57	5.27
HOMOGENEITY (MC) "	6.30	6.12	6.63	4.26	6.61	4.82
HOMOGENEITY (BC) "	3.40	4.88	4.44	3.61	4.52	4.18
LIKING BC "	5.30^{b}	3.52^{a}	3.00^{a}	5.00^{b}	4.78	5.36^{b}
DIFFERENCE IN -=MC > BC BROAD-MINDEDNESS +=BC > MC	-1.75	0.33	0.25	-0.59	-0.33	0.09

Means with different subscripts are significantly different at $p < .05$ (Newman-Keuls).

† $p < .10$
* $p < .05$
**** $p < .0001$

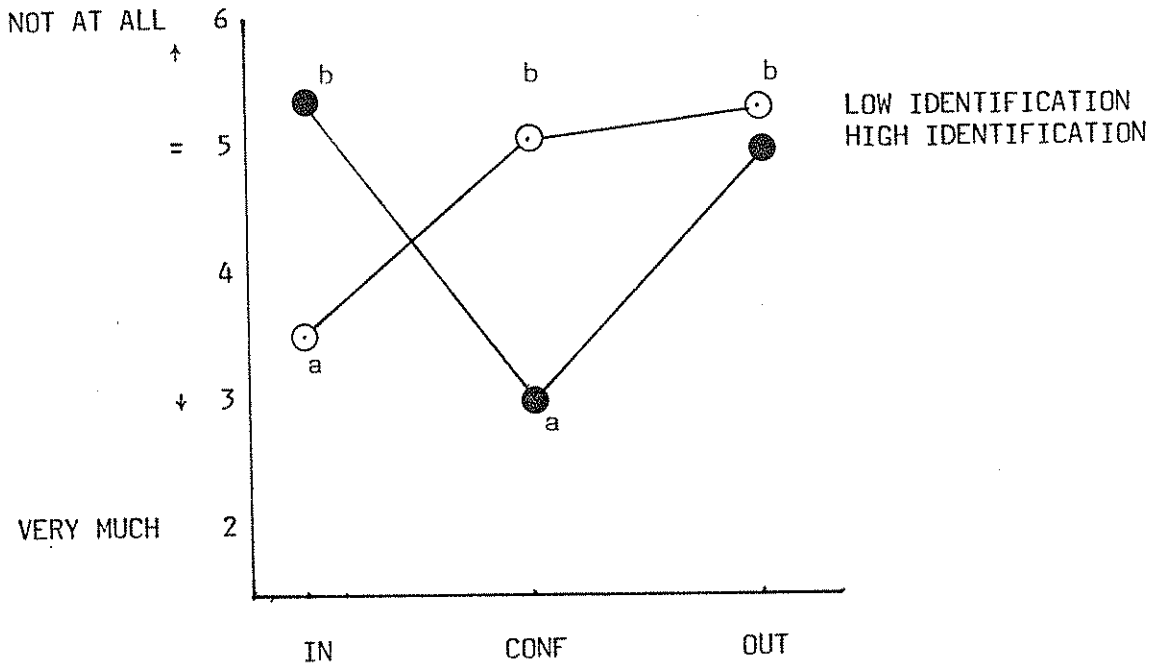


Figure 8: Condition x Identification interaction on the question: 'If you were at BC, how much would you like the pupils there?'

($F \simeq 10.16$, $p < .0001$, a and b differ at $p < .05$ by Newman-Keuls.)

Condition x Self-consciousness analyses

a. Self-consciousness main effects

On the ATTITUDE ($F_{13,94} = 1.94$, $p < .05$) items high PUB subjects were again more identified with the school than were lows. They also differentiated more than lows on the TRAIT total differentiation score ($F_{1,101} = 9.79$, $p < .01$) but this did not produce a significant MANOVA.

On the ATTRIBUTION ($F_{24,78} = 1.68$, $p < .05$) items high PRIV subjects attributed both schools' success more to effort and parents than did lows. This effect was stronger for MC than for BC pupils but not reliably so (see Table 8.8).

Table 8.8

a. Significant multivariate main effects of Private and Public self-consciousness (from Condition x Private x Public MANOVAs)

MULTIVARIATE EFFECT	VARIABLES	WILK'S LAMDA	UNIVARIATE ITEMS	MSe	F	p <	HIGHS	LOWS
PRIVATE	ATTRIBUTION	.66	SUCCESS-EFFORT (MC) (df 1,101)	13.08	9.54**	.005	6.05	5.40
			SUCCESS-EFFORT (BC)	1.51	4.81*	.05	5.82	5.30
			SUCCESS-PARENT (MC)	6.01	9.62**	.005	4.79	3.72
			SUCCESS-PARENT (BC)	2.76	3.73†	.06	4.53	3.85
PUBLIC	ATTITUDES	.79	TIES (df 1,106)	3.65	7.90**	.01	2.88	4.00
			PRIDE	2.98	5.01*	.05	2.77	3.63
			BELONGINGNESS (-)	3.40	8.17**	.005	5.30	4.19
			CHOICE OF SCHOOLS	25.08	3.92*	.05	2.36	1.87

b. Summed Scores: Main effects of Self-consciousness (from Condition x Private x Public ANOVAs) (df = 1,92)

ITEMS	EFFECT	MSe	F	HIGHS	LOWS
TRAITS	PRIVATE	222.5	1.97	18.07	20.22
	PUBLIC	222.5	9.79**	23.03	14.22
EVALUATIONS	PRIVATE	222.5	1.17	13.02	14.85
	PUBLIC	222.5	3.02†	16.11	11.24
COMBINED	PRIVATE	315.84	4.07*	13.63	18.95
	PUBLIC	315.84	7.43**	20.27	11.23

† $p < .10$
* $p < .05$
** $p < .01$

b. Condition x Self-consciousness interactions

There were no significant Condition x Public Self-consciousness interactions.

There were, however, four significant Condition x Private Self-consciousness multivariate interactions. These were on ATTRIBUTION ($F_{48,156} = 1.73$, $p < .01$), SUPPORT ($F_{14,186} = 1.93$, $p < .05$) and BIAS ($F_{6,206} = 2.12$, $p < .05$) items as well as on the DIFFERENTIATION on ATTRIBUTION ($F_{24,180} = 1.70$, $p < .05$) items. On the ATTRIBUTION items HiPRIV subjects attributed MC and BC success, as well as MC failure more to effort than lows had, but only in the OUT condition (producing the interaction effect). Highs attributed BC failure to parents more than lows in the IN and OUT conditions but not in the CONF condition. Explanations of failure in terms of Luck were made more to MC than BC by LoPRIV than HiPRIV in the OUT condition but this pattern was reversed in the CONF and IN conditions. When explaining success in terms of type of parents HiPRIV subjects used this explanation more for MC than BC in the OUT and especially the CONF condition, whereas LoPRIV subjects used it more in those conditions (both Hi and LoPRIV subjects used it more in the IN condition). When reporting their strategies (STRATEGY and BIAS MANOVAS) HiPRIV subjects reported having supported BC less, and (thus) MC relatively more than lows in the CONF condition but this was reversed in the IN and OUT conditions. It is worth mentioning that there were no significant Condition x Private Self-consciousness interactions on the actual DIFFERENTIATION scores and that those on the ATTRIBUTION items do not conform to the pattern which subjects actually reported. These results are presented in Table 8.9 and Figure 9.

Table 8.9

Significant multivariate Condition x Private self-consciousness interactions (from Condition x Private x Public MANOVAs)

MULTIVARIATE VARIABLES	WILK'S LAMDA	UNIVARIATE ITEMS	(df)	MSe	F	IN HIGH 20	IN LOW 25	CONF HIGH 15	CONF LOW 24	OUT HIGH 23	OUT LOW 11
ATTRIBUTION	.43	SUCCESS-EFFORT (MC)	1,101	1.30	4.01*	6.05^{b}	5.64^{b}	5.80^{b}	5.54^{b}	6.22^{b}	4.55^{a}
		SUCCESS-EFFORT (BC)		1.51	3.39*	5.75^{b}	5.40^{b}	5.50^{b}	5.54^{b}	6.09^{b}	4.55^{a}
		SUCCESS-TASK (MC)		2.79	3.49*	3.45_{b}	3.28_{b}	2.07^{a}	3.75^{b}	3.39_{b}	2.91
		FAILURE-EFFORT (MC)		2.29	2.90†	5.45^{b}	5.68^{b}	5.73^{b}	5.13	5.57^{b}	4.18^{a}
		FAILURE-PARENTS (BC)		3.36	3.00†	4.80	3.44	3.29	3.79	4.41	3.73
SUPPORT STRATEGY	.77	SUPPORT FOR BC	2,104	1.31	4.51*	4.65^{a}	5.28	5.33	4.79^{a}	4.95^{a}	6.00^{b}
BIAS	.89	SUPPORT FOR MC SUPPORT FOR BC	2,105	2.95	5.34**	-0.60^{a}	-1.76	-1.73	-0.67^{a}	-1.68	-3.09^{b}
DIFFERENTIATION ON ATTRIBUTIONS	.66	SUCCESS-PARENTS	2,101	1.51	3.10*	-0.15^{b}	-0.08^{b}	0.93^{a}	-0.33^{b}	0.05^{b}	-0.18^{b}
		FAILURE-LUCK		0.63	6.89**	0.10^{bc}	-0.12^{d}	0.00^{c}	-0.22^{d}	-0.17^{d}	0.82^{a}

Means with different subscripts differ at $p < .05$ (Newman-Keuls).

† $p < .10$
* $p < .05$
** $p < .01$

c. Condition x Private x Public Self-consciousness

There were two of these - on the STRATEGY ($F_{14,196} = 1.96$, $p < .05$) and BIAS ($F_{6,206} = 2.51$, $p < .05$) items. There was also a significant ANOVA effect on the total TRAIT DIFFERENTIATION score ($F_{2,90} = 5.33$, $p < .01$), which was not reflected by a significant multivariate effect. The best descriptor of the STRATEGY and BIAS effect is the computed variable of Ingroup support minus Outgroup support. The important differences occurred in the IN and OUT conditions. In the OUT condition, greatest ingroup bias was reported by HiPUB LoPRIV subjects but least by LoPUB LoPRIV subjects. This suggests that public self-attention was an important factor in that condition. In contrast, among LoPUB subjects in the IN condition, HiPRIV subjects showed no bias at all, whereas LoPRIV subjects showed the most (see Figure 9 and Appendix E8).

The total affective differentiation score should reveal how accurate these reports of behaviour were. In the OUT condition the pattern is indeed just as was described by subjects' self-reported bias. While HiPRIV LoPUB subjects were the least biased in the IN condition this was not a strong effect. In the CONF condition bias was weakest among LoPUB and strongest among HiPUB. This effect was exaggerated further in the OUT condition, but only amongst LoPRIV subjects. HiPRIV subjects converged at the middle range of biases ($F_{2,90} = 3.53$, $p < .05$).

Hence, subjects accurately reported their behaviour in the IN and OUT conditions but in the CONF condition HiPRIV LoPUB subjects over-estimated their bias, whereas LoPRIV HiPUB subjects underestimated it (see Figure 10).

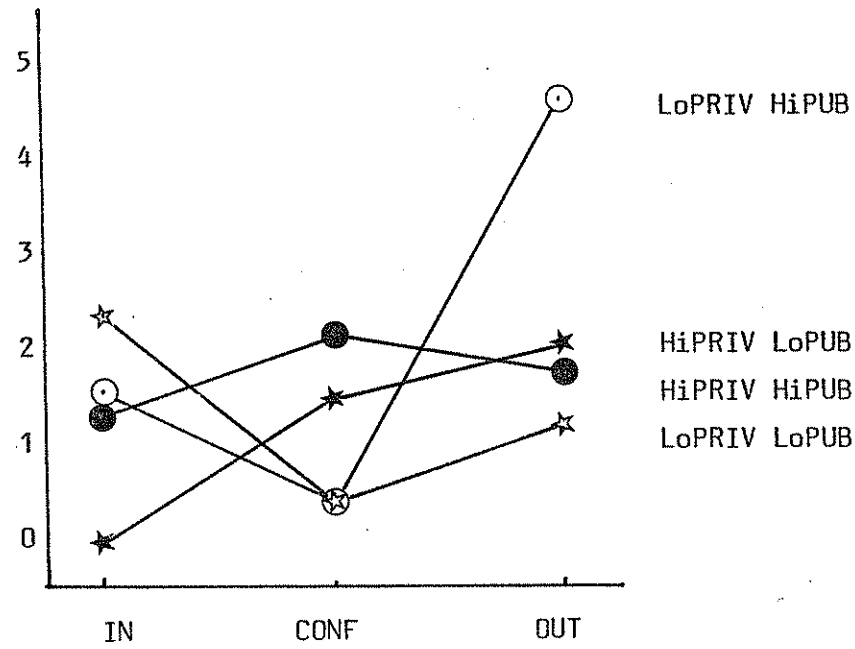


Figure 9: Ingroup support-Outgroup support (self-report): Condition x Private x Public interaction ($F = 5.33$, $p < .01$) and Condition x Private interaction ($F = 5.34$, $p < .01$)

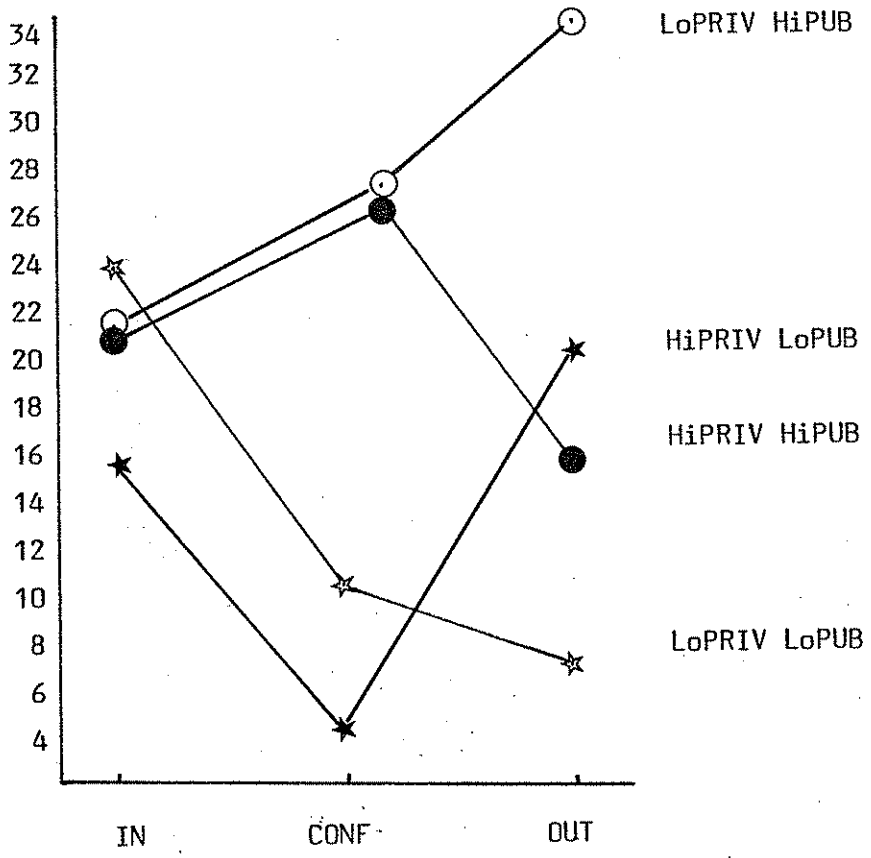


Figure 10: Summed TRAIT differentiation: Condition x Private x Public interaction ($F = 3.53$, $p < .05$)

Identification x Self-consciousness interactions

There were two significant multivariate effects here, both involving Public Self-consciousness. These were on EVALUATIVE ($F_{28,70} = 1.89$, $p < .05$) and ORIENTATION ($F_{8,101} = 2.02$, $p < .05$) items. On rating how much they liked BC and how homogeneous BC pupils are HiPUB HiIDENT subjects were more favourable than HiPUB LoIDENT. However, among LoPUB subjects those who were HiIDENT tended to be more hostile than LoIDENT, thus revealing the impact of Public Self-consciousness on Identification[12]. In contrast, when rating BC at music (one of the few items on which there was no significant general ingroup bias) among HiPUB the LoIDENT subjects were more favourable than the HiIDENT subjects. Among the LoPUB subjects the LoIDENT subjects were less favourable than the HiIDENT subjects (see Table 8.10).

Table 8.10

Significant Public self-consciousness x Identification multivariate interactions

Multivariate Variables	Wilk's Lamda	Univariate Items	(df)	MSe	F	HiIDENT HiPUB (41)	HiIDENT LoPUB (17)	LoIDENT HiPUB (25)	LoIDENT LoPUB (34)
EVALUATIVE	.57	Music (BC)	1,97	2.80	14.66*	5.59[b]	6.53[b]	5.96[b]	4.71[a]
ORIENTATION	.86	Homogeneity (BC)	1,108	4.05	3.29†	4.26	3.76	3.67	4.66
		Liking for BC		3.70	2.92†	4.50	4.41	3.96	4.77

† $p < .10$
* $p < .001$
a and b differ at $p < .05$ (Newman-Keuls).

Other analyses

a. Pre-test-experimental attitudinal consistency

Difference scores between pre-test and experimental attitudes were computed and then transformed into absolute difference scores (irrespective of sign) in order to test the hypothesis that increased Private self-attention would lead to higher consistency. These scores were entered into MANOVAs using the same combinations of independent variables as were used above. There was a significant main effect of Public Self-consciousness ($F_{10,97} = 1.97$, $p < .05$) which was evident on five of the items (see Table 8.11). Contrary to expectations, high Publics were more consistent than lows. There were no other significant multivariate effects.

Table 8.11

Significant main effects of Public self-consciousness on test-re-test (absolute) difference scores (df = 1,106)

Item	Highs	Lows	MSe	F
Ties	0.62	1.27	1.52	6.39*
Fees	0.83	1.35	1.71	5.20*
Care	0.49	1.27	1.97	7.92**
Belong	0.79	1.50	1.93	5.07*
Industry	1.20	1.71	1.65	4.69*

* $p < .05$
** $p < .01$

b. Self-esteem

Scores on the RSE scale correlated weakly but reliably ($r \simeq .22$, $n = 113$, $p < .01$) with positive ratings of MC at drama, music and maturity, but with negative ratings of BC in terms of friendliness. It also correlated positively with feeling proud of the school in the experimental session. It correlated with not supporting BC, and

with differentiating in favour of MC in terms of timidity and maturity (esteem relevant variables). On attribution items self-esteem was positively correlated with attributing BC success to ease of task, and with differentially attributing BC success and failure more to parents than MC's. Finally, it correlated positively with both the AFFECTIVE and the EVALUATIVE summed differentiation scores; positive self-esteem was related to greater ingroup bias.

The RSE scores were also correlated with other individual differences. They correlated highly with social anxiety ($r = .33$), neuroticism ($r = .52$) and with social anxiety in the experimental session ($r = .36$) (all $ns > 110$, all $ps < .001$). Thus, low self-esteem subjects tended to be rather ill at ease relative to highs. These correlations are presented in Table 8.12.

Table 8.12

Significant correlates of pre-test self-esteem (n = 117)

Variable	r	Interpretation
(MC) Drama	-.23**	Higher esteem = higher rating
Music	-.24**	"
Mature	.24**	"
(BC) Friends	.25**	Higher esteem = lower rating
Pre-test pride in school	.15*	Higher esteem = higher pride
Experimental pride	.22**	" "
Attitude to responsibility	.25**	(BC referenced) Higher esteem=agreement
(BC) Success: Task	-.22**	Higher esteem = endorse attribution
Supporting BC	-.24**	Higher esteem = less support
Differentiation Scores		
Timidity	-.22**	Higher esteem = BC more timid
Maturity	-.28***	Higher esteem = MC more mature
Success: Parents	-.25**	Higher esteem = BC success due parents
Summed evaluative	-.23**	Higher esteem = higher bias
Summed trait	-.24**	" "
Extroversion	-.14	Higher esteem = higher extroversion
Neuroticism	.52***	lower neuroticism
Public self-consciousness	.19*	lower public
Private self-consciousness	.04	no relation
Social anxiety	.33***	lower anxiety

* $p < .05$
** $p < .01$
*** $p < .001$

c. Effects of sex

Although no specific effects were predicted it was thought prudent to include sex of subject as a factor in the design. In fact, several main effects of sex were obtained, on the TRAIT and ATTRIBUTION simple and DIFFERENTIATION scores, as well as on the BIAS items. Quite simply, girls rated BC as more likeable than did boys (both sexes rated MC equally positively) and thus differentiated less against them. This was reflected by an ANOVA on a summed TRAIT differentiation score ($F_{1,107} = 10.94$, $p < .001$). Females also attributed BC success more to teachers and parents than did males, whereas they attributed MC failure more to teachers but less to task difficulty than did males. Females used a strategy of supporting both schools more and trying to beat BC less than did males (see Appendix E9). None of these effects influenced others or interacted with any other independent variables.

Manipulation checks

The full tables of manipulation checks are provided in Appendix E10. However, the most important check was whether subjects were aware of which audience their answers had. The responses to this check indicate that the audience manipulation was fairly successful (see the diagonal in Table 8.13).

Table 8.13

Manipulation check of expected audience

Condition	Answer to which audience would be seeing booklets		
	INGROUP	NONE	OUTGROUP
IN	36	10	3
CONF	1	39	1
OUT	1	2	35

DISCUSSION

Intergroup behaviour

As expected, subjects displayed ingroup bias. However, this was greatly reduced among females because they were often quite positive about both of the schools. There are a number of reasonable explanations for this result. First, sex *per se* - some girls were engaged in intimate relationships with boys from the other school. Thus, interpersonal attraction, increased contact and knowledge of the other school mitigated against ingroup bias. This explanation follows the line taken by approaches to intergroup behaviour which favour individualistic explanations. An alternative which is consistent with social identity theory is that, since girls were in the minority at MC, they regarded both schools as being essentially male and, therefore, as sharing the same characteristics. In other words, they may not have regarded the two schools as separate categories. A check on this idea revealed that males did regard outgroup pupils as more homogeneous than girls did ($t = 1.94$, $df = 124$, $p < .05$, 1-tailed), whereas both boys and girls regarded ingroup pupils as equally heterogeneous. So girls perceived the type of pupils at the two schools as less different than did boys. Given the rather weak nature of the data supporting this argument, it seems that both individualistic and social identity explanations of the sex differences are credible.

Also, as expected, subjects differentiated in terms of their attributions. However, they did not do so by use of the four dimensions suggested by Weiner. Instead they attributed ingroup success more to good teaching than they did outgroup success, but ingroup failure less to bad teaching or parents than outgroup failure. While Hewstone *et al.* (1982) were able to use status differences between schools as a largely *post hoc* explanation of their findings, it is not possible to

do so with the present data. Hewstone et al. found that the superior (public school) group used internal stable factors to explain their own success but that the inferior (comprehensive school) group used external unstable factors to explain it. However, with the present results, it is hard to fit parents and teachers into either of those categories. Parents and teachers are both stable and external factors in individual terms. On the other hand, if we treat the attributions as group phenomena then these factors are internal and (possibly) stable and criterial attributes of the group. In view of the intention to encourage attribution at the group level these findings are potentially quite important. It seems that intergroup attribution may be based on quite a different cognitive schema from personal and interpersonal attribution.

Support for the hypotheses from main effects

a. Salience, audiences and self-portrayal

Against the background of general ingroup bias we may now examine the other hypotheses. 3) Quite simply, the OUTGROUP audience condition did provoke greater intergroup differentiation than the other conditions, especially than the CONF condition, as was predicted. It is plausible that this is because of the heightened salience of the intergroup distinction in the OUT condition. However, we cannot say why increased salience should necessarily have such an effect (see Chapter 6 for discussion of this point in greater detail) and the effect did not pervade all of the dependent variables.

2a) Self-portrayal would have led to greater differentiation in both audience conditions (OUT and IN) or only the IN condition. That it did not suggests that the salience of group membership affects self-definitional concerns first.

2b) There was no evidence of 'reference group' behaviour by, or normative influence on, high Publics. Somewhat surprisingly, highs were more consistent over time in their attitudes than were lows, indicating, perhaps, that the same aspects of self were salient in both sessions.

2c) On the other hand, highly Public self-conscious subjects did show more ingroup bias than lows on trait ratings. It may be tentatively suggested that this reflects high Publics' concern with interpersonal affiliation within a group (Froming and Carver, 1981) and interpersonal evaluations (Fenigstein, 1979). It is therefore reasonable to suppose that self-presentation is relevant to intergroup behaviour on at least some dimensions. However, the fact that there were no interactions with Condition suggests that the self-presentational 'standards' used by publicly self-conscious people are not necessarily those which might be inferred from the nature of the audience.

3d) There was no interaction between Public self-consciousness and Condition on the REFERENCED items. Thus Carver and Humphries' (1981) results have not been replicated in the present experiment. Nor is there evidence of purely normative influence operating.

b. Social identification and private self-consciousness

1a) In line with the self-definition approach, highly identified subjects were more favourable to the ingroup than were LoIDENT subjects. The tendency for highs to differentiate more was also present but not strong. This is hard to reconcile with the idea that intergroup discrimination is entirely bound up with identity. It may be that positive identity is gained through intragroup processes above and beyond the initial differentiation between in and outgroup (Abrams, 1982; Brewer, 1979).

1b) Referent informational influence did seem to be operating in this experiment since highly identified subjects generally agreed more with ingroup and less with outgroup statements than did lows, irrespective of Condition. Furthermore, high and low identified subjects did not differ, generally, in their endorsement of attitudes which did not have a group referred to as their source.

1c) The self-definition view is not supported by the behaviour of highly Private self-conscious subjects. Their intergroup behaviour did not differ from that of lows.

1d) It is also surprising that Private self-consciousness had only a minor impact on self-consistency since one explanation for 1c would have been that high Privates were concerned with aspects of self-definition other than that provided by intergroup comparisons.

The relationship between identification and self-presentation

So far, then, the evidence is mixed. Both self-portrayal and self-definition appear to have some relevance. Interactions between identification and audience condition should provide some clarification. Highly identified subjects differentiated between groups and stereotyped the outgroup more than did lows in the IN condition but this reversed slightly in the other conditions. This suggests that subjects of both types expressed their feelings as appropriate to the audience. It is particularly notable that highly identified subjects were much more favourable towards the outgroup in the absence of an audience, whereas the opposite occurred amongst low identified subjects. These results are of value since they demonstrate the compatibility of self-definitional and self-presentational themes in intergroup contexts.

If salience has a self-definition evoking property then audience, and particularly an outgroup audience, should combine with private

self-attention to exaggerate behaviour based on intergroup reference values ('standards'). The evidence from these data was that high Privates attributed ingroup success or failure more to effort in the IN and OUT than in the CONF condition. Similarly, they attributed outgroup failure more to parents (negative) than did lows in the IN and OUT conditions but not in the CONF condition.

In other words, it seems that the audience conditions increased internal attributions. However, for the ingroup these were unstable, and hence under the influence of the group, whereas for the outgroup they were stable, and hence represented a permanent condemnation. The fact that the effects of Private self-consciousness were most prevalent on the attribution items, and that these were restricted to internal (effort and parents) attributions supports the assumption that these subjects were indeed privately self-focused since attributions should theoretically follow the direction of attention. What is interesting is the tendency of highly Private self-conscious subjects to use differentially personal explanations for the performances of ingroup but social attributions for the outgroup[13].

Consistent with the interpersonal attraction aspects of Public self-consciousness it was only amongst LoIDENT subjects that HiPUB subjects thought they would like the pupils of BC more than did LoPUB subjects.

The data suggest that both self-presentational and self-definitional factors have identifiable roles to play in intergroup behaviour. The various interactions just described point to the conclusion that the two factors are interactive. It seems plausible that those who are highly identified with a group are more likely to seek opportunities to express that identity overtly, particularly to other ingroup members (cf. Turner's, 1982, discussion of 'over-conformity').

Implications for the theories

a. Social identity theory

Perhaps the most important finding is that identification is most clearly associated with ingroup favouritism and, quite often, ingroup bias. To date there has been no other research which so clearly demonstrates this relationship. Since identification is the crux of Social Identity Theory this study has provided an important contribution to its empirical validation. Furthermore, identification in this experiment was a demonstrably real and stable aspect of the group involved (test-re-test correlation was r = .75), unlike some of those used in earlier research. The theory received further corroboration from the finding that referent informational influence, rather than normative influence, occurred in this study.

Second, attempts to manipulate the salience of social identity have depended largely on intrapsychic factors (e.g. order of presentation of materials, attention, etc.). The present study demonstrated that, even when individual differences in identification were accounted for, a similar effect could be produced by more social means; i.e. the presence of an in or outgroup audience. However, the audience may have two effects: first, to increase the salience of the intergroup distinction; and, second, to specify behavioural standards.

Third, it has been shown that intergroup attributions for success and failure are a source of ingroup bias, but not necessarily on the same dimensions as are used when attributions are made about individuals' success or failure. This suggests that people may use different types of causal explanations for individual and group outcomes.

b. Self-attention theory

Here the key results both concur with and depart from those of

past research. HiPUB subjects expressed more ingroup bias than did lows, but this adoption of ingroup support did not increase their agreement with statements attributed to their ingroup. In fact, HiPUB subjects were more consistent than lows - a completely novel and counter-predictive result. One possible post hoc explanation is that highs may have wished to portray themselves as being consistent, for some reason. These results certainly pose a problem for self-awareness theories, though.

In line with self-attention theory, different audiences did appear to cue different responses, presumably invoking different behavioural standards. However, as the interactions between self-consciousness and Condition and Identification show, both Private and Public factors contribute to the determination of intergroup behaviour.

GENERAL DISCUSSION

A difference between the theories which has so far been left aside concerns the motivational bases of behaviour. Carver and Scheier (1981a) regard the behavioural standards specified by a schema as being intrinsically motivational. The mere perception of a divergence between behaviour and standard motivates renewed regulation of behaviour. In contrast, Social Identity Theory specifically posits the desire for positive self-esteem and self-image as the motivational force.

A tentative exploration of the relationship in the present experiment showed that dispositional positive self-esteem was reliably correlated with intergroup differentiation. Quite why this should be so is unclear since it might be expected that bias should be relatively weaker amongst people who already have a positive self-image (see Hypothesis 4). However, this variable was also correlated with neuroticism and social anxiety, so it may be that subjects higher in self-esteem felt more secure

and were less wary of social retribution than were lows; hence they felt freer to be biased in favour of the ingroup. Arguably, then, higher self-esteem and greater confidence are strong bases for enhancement of self-image in other spheres, whereas low self-esteem inhibits such actions. This is consistent with Baumeister's (1982a) finding that high self-esteem subjects used self-enhancement manoeuvres when their self-image was under threat, whereas lows did not. Furthermore, there is evidence that people strive to confirm their self-conceptions (Swann and Read, 1981) and thus it it logical that higher self-esteem subjects would try to maintain their esteem, whereas lows would not necessarily try to enhance theirs. While the data from the present study do not directly contradict social identity theory,they are more readily explainable in a self-attention/self-regulation framework.

In sum, this study has been innovatory in testing fundamental issues of when and why intergroup differentiation occurs in a real group with an enduring identity and a meaningful outgroup with which to make comparisons. It has pointed to the conclusion that, while Carver and Scheier are right about the pervasive nature of the principles of self-regulation, social identity theory is correct in its basic claim that the regulation of intergroup behaviour cannot be simply reduced to the sum of individual action. In this study it seems that subjects do not regulate their intergroup behaviour solely in terms of Private or Public standards, but that identity and social factors interact in their determination of the standards for behaviour. These theoretical issues will be reconsidered at the end of the next chapter, in which a small replication of the present study is reported.

NOTES

1. A gross example would be a possible study of childhood memories; this would be impossible if subjects were not granted the luxury of a childhood. Since the childhood itself would be difficult to control experimentally it is clear that mundane realism is a necessary part of experimental realism in this case.

2. It is almost too obvious to state that it is predicted that subjects will display ingroup bias and favouritism, because of their desire to make the ingroup positively distinctive from the outgroup. Of course, this presumption is derived from social identity theory, and forms the backdrop against which other hypotheses are to be inspected.

3. 398 boys (241 boarding) and 168 girls (47 boarding) attended the school. The largest block of pupils was at sixth form level (149).

4. All subjects were fairly neutral about schools, although the direct grant school pupils were more positive than comprehensive subjects.

5. In only one of the three schools did the salience manipulation influence responses for self. Thus there may be some doubt as to the certainty with which we can accept the claim that 'individuals may adopt a more polarised expression of opinions ... because of the way those opinions may relate to group identities' (Skinner and Stephenson, 1981, p. 57).

6. The dimensions for differentiation may be different and fewer. For example, British attitudes to Europe are distinct from British attitudes to the French or Germans or Irish in particular. Even the salience of these different levels of group membership may not be equivalent.

7. These were later coded as similarities and differences, which inevitably revealed different beliefs and values among pupils of the two schools.

8. This methodology tends to make the group a property of the individual (like IQ), whereas social identity theory tends to stress that the individual is representative of the group and subsumed by it. In order to investigate the relationship between intergroup attributions and intergroup perceptions within the social identity framework it is necessary for the group rather than its individual members to be the salient entity.

9. Although consistent with Turner's (1978) results, this account is contradictory to that of Skinner and Stephenson (1981), who regarded the effect of self-ratings to be facilitative of intergroup differentiation.

10. The other school was the one which subjects most wanted to beat academically.

11. This analysis was discussed at length with Professor David Howell, an author of several books on statistics for psychologists. He pointed out that the nature of the cell sizes means that each column (i.e. condition) mean is differently weighted, and hence the inclusion of identification in the analyses, as an independent variable, does satisfactorily reduce the likelihood that any main effects of condition are confounded with the greater overall identification mean in the OUT condition. Indeed, it is somewhat alarming to consider the conclusions which could have been drawn about the effects of conditions had one not been aware of the random (but significant) differences between them in subjects' group identification.

12. It should just be noted that these effects were both $.1 > p > .05$.

13. On the other hand, it was lows who reported having given greatest ingroup support in the OUT condition (although these questions were not going to be seen by either school). So the evidence is rather ambiguous.

14. While the terms EVALUATIVE and TRAIT ratings are used to refer to differently presented dependent measures there is no assumption that the trait items are non-evaluative. Indeed such traits may combine to represent criterial attributes for category membership.

CHAPTER 9

A REPLICATION OF THE MIXCOLLEGE EXPERIMENT

INTRODUCTION

Certain reservations may be held about the interpretation of the results of the MIXCOLLEGE experiment. Principal among these was the question of whether the intergroup ratings really did reflect ingroup bias, or whether they were merely an accurate representation of the differences between the two schools. In order to put those responses in perspective a small replication was conducted at BOYCOLLEGE.

Most aspects of the procedure were identical to that in the MIXCOLLEGE study. However, the subjects were all male, and only forty-five took part. Furthermore, there was no pre-test session, and the subjects in the experiment were seated very close to one another. Therefore, the results from this replication cannot be regarded as being as reliable as those from the MIXCOLLEGE experiment. The design is shown below:

Condition	Ingroup	Confidential	Outgroup	Total
n	16	14	15	45

The identification scale had an alpha of .80 and identification did not differ significantly between conditions ($F_{2,44} = 1.60$, $p > .20$). A median split was performed on the identification scores, and used to analyse the data by MANOVAs in a Condition x Identification design, which is shown below in Table 9.1.

Table 9.1

Design

Identification	Condition: Ingroup	Confidential	Outgroup
High	5	7	11
Low	11	7	4

Clearly, these cell sizes are far from adequate; however, they do allow a tentative investigation of main effects. Simple repeated measure (ingroup rating-outgroup rating) MANOVAs were also performed in order to see if ingroup favouritism were present. Finally, the data were analysed using the dispositional Self-Consciousness Scale (Fenigstein et al., 1975).

RESULTS

Ingroup bias

Ingroup bias was found to be significant on EVALUATIVE ($F_{14,14} = 5.73$, $p < .001$), TRAIT ($F_{16,13} = 2.93$, $p < .05$) and ORIENTATION ($F_{2,38} = 8.83$, $p < .001$) items. The univariate analyses indicated that mathematics, sport, music and wealth were the most important items (ps $< .001$). On the ORIENTATION measures subjects thought that an MC person would like BC people, but not vice versa. In general, the degree of bias was somewhat less than that shown in the MIXCOLLEGE experiment (see Appendix F1).

Condition x Identification analyses

There was a weak main effect of Identification on the EVALUATIVE items ($F_{30,10} = 2.40$, $p < .07$). Highs thought BC was more exciting, better at music and more fun than did lows.

On the ORIENTATION items there were main effects of Condition and Identification, as well as an interaction between the two ($F_{16,58} = 2.10$, $p < .02$). The main effect of Identification ($F_{8,29} = 2.67$, $p < .025$) was due to highly identified subjects giving greater rewards to ingroup, and rating it as more homogeneous than did lows. The main effect of Condition ($F_{16,58} = 1.94$, $p < .034$) was more or less linear: ingroup rewards were highest, perceived intergroup similarity was lowest and

perceived outgroup homogeneity was highest in the INGROUP condition but the reverse occurred in the OUTGROUP condition. The Condition x Identification interaction revealed that, on the reward measure, and on liking for MC, highs were more biased against MC in the INGROUP condition, but this difference reduced or reversed in the other conditions, as can be seen in Figure 11, below (and see Appendix F2).

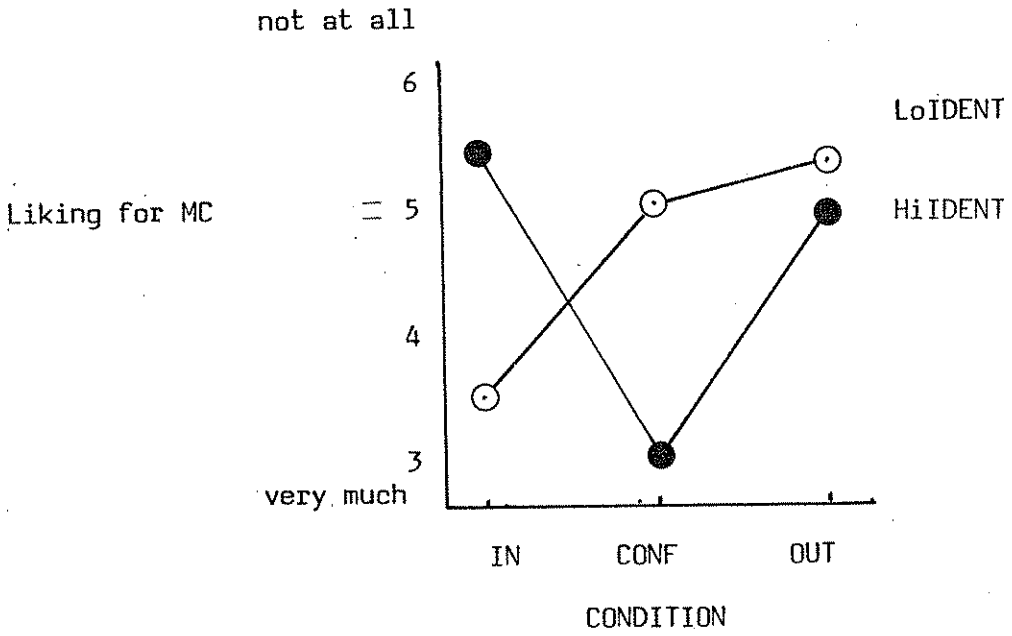


Figure 11: Condition x Identification interaction on liking for outgroup ($F_{2,36} = 3.25$, $p < .05$)

The summed differentiation scores on the EVALUATIVE and TRAIT items were also subjected to Condition x Identification ANOVAs. On the EVALUATIVE items there was a main effect of identification ($F_{1,39} = 5.05$, $p < .05$) and a Condition x Identification interaction ($F_{2,39} = 3.43$, $p < .05$). Highly identified subjects were more biased than lows, an effect which was most reliable in the CONF condition (see Appendix F3).

There were no significant multivariate effects of Self-Consciousness, although there was a significant Private x Public interaction on self-reported response strategy ($F_{1,40} = 5.99$, $p < .02$). Among high Privates

only the high Publics reported favouring the ingroup over the outgroup. Among the low Privates only the low Publics reported ingroup bias. Furthermore, these self-reports accurately reflect their actual differentiation levels on the summed EVALUATIVE differentiation score ($F_{1,29} = 3.54$, $p < .07$) (see Appendix F4).

DISCUSSION

These results are similar to those of the MIXCOLLEGE study in several ways. First, subjects again showed ingroup bias, although it was slightly less impressive at BC. The fact that these biases occurred on items such as those concerning sporting abilities and performance indicates that the two schools actually hold emphatically contradictory views of their relative standing. This is in spite of the fact that objective records of sports performance are available and known to subjects (e.g. in the end-of-year reports and prospecti published by the schools). In actual fact, these records indicate that the two schools are quite evenly matched. Also of interest is the fact that 'music' was a dimension on which BC displayed most bias, while MC displayed least. In fact, BC is renowned as a music school, and it may be that this was such a clear criterial attribute in their favour that it would have been illegitimate for MC pupils to pretend otherwise (cf. Mummenday and Schreiber, 1983).

The second area of support for the MIXCOLLEGE results comes from the identification measure. Once again identification was associated with ingroup favourability, and (less clearly) ingroup bias. It is interesting to note that both studies produced positive correlations between identification and ingroup and outgroup evaluations (see Appendices F5 and F6). Although the association was stronger for ingroup evaluations, this finding is rather surprising and would not

have been predicted from social identity theory. These data indicate that identification can be expressed through ingroup commitment irrespective of intergroup differentiation (see also Appendix F7).

The effects of condition in the two studies are also somewhat curious. In both, the effects were restricted to the ORIENTATION items. These concerned statements about how subjects felt towards the two schools, how homogeneous they perceived the pupils to be, and so on. However, at MC the OUTGROUP condition produced most hostility, whereas at BC the INGROUP condition produced most hostility.

This anomaly is resolved when the Condition x Identification interactions are examined since they qualify the main effects of Condition on the ORIENTATION measures in both studies. In fact, the very same measure ('If you were a pupil at [the outgroup school] how much do you think you would like the other pupils there?') in both studies produced the most significant univariate effect. In both, the highly identified subjects were more negative than lows in the INGROUP condition, but this difference was reduced or reversed in the CONF and OUTGROUP conditions. Even with the inadequate cell sizes in the BOYCOLLEGE study the evidence seems to indicate that it is not just the audience which is important, but the relationship between one's group identification and that audience. Specifically, identification with one's group affects willingness to display to the ingroup one's attraction to the outgroup.

The main effects of self-consciousness obtained in the MIXCOLLEGE study were not significant in the BOYCOLLEGE study. However, correlations between Public self-consciousness and dependent measures revealed significant positive associations between Public self-consciousness and positive ingroup ratings. Hence the data are at least non-contradictory (see Appendix F8). There were no significant

Self-consciousness x Identification interactions.

Although no significant Private x Public self-consciousness interactions were obtained in the MIXCOLLEGE study, those obtained in the BOYCOLLEGE study are similar to those found in the Minimal Group study (Chapter 6, Table 6.7), and the Similarity study (Chapter 7, Table 7.6). That is, highest expressions of ingroup support occur among subjects who are high on both or low on both dimensions of self-attention. Interpretation of the high/high means is not difficult; subjects are aware of their group membership (Private) and wish to display commitment to it (Public). Unfortunately it is rather harder to find a sensible explanation for the low/low means. As was mentioned in Chapter 1, self-awareness theorists have not been forthcoming with predictions about the behaviour of the unself-conscious person. One possibility, which follows from Diener's (1980) research, is that low/lows are disinhibited and display hostility and bias in a rather carefree manner.

In general, it appears that the two studies reported in this and the previous chapter sit well together. Taken as a whole, the results indicate three main points. First, identification with a group produces ingroup bias. Second, the expression of ingroup bias to an ingroup audience is influenced by strength of identification. Third, and parallel with the self-portrayal/self-definition effects just described, private and public self-attention seem to influence intergroup behaviour. Higher public self-attention is associated with greater ingroup bias, whereas higher private self-attention is not. Yet when the two combine ingroup bias is often maximised.

Theoretical issues remaining

While the MIXCOLLEGE and BOYCOLLEGE experiments are coherent one

major problem remains unresolved. Since people behave differently to different audiences we can assume that self-presentation is involved. From the point of view of self-awareness theory it is necessary that attention be paid to the public aspects of self in order that a person presents him or herself as he or she wishes. In the experiments reported thus far higher public self-consciousness has been associated with greater ingroup bias. This suggests that, contrary to St. Claire and Turner's (1982) ideas[1], intergroup situations encourage self-presentation as a 'good' ingroup member. The key question is why were there no significant Public self-consciousness x Condition interactions in the MIXCOLLEGE and BOYCOLLEGE experiments? Theoretically, we should have found that only those who were high in Public self-consciousness behaved differently to different audiences. As it is, no conclusions can be drawn as to the effects of Public self-attention on intergroup behaviour to different audiences. The final experiment in this thesis was designed in order to address this problem.

Another slight question mark over these two experiments arises from the fact that all subjects were together when filling in the dependent measure booklets. This may have created an ingroup audience, even though there was no communication between subjects. The effect of this may have been to raise the floor for intergroup discrimination, producing a weak operationalisation of the distinction between conditions. Although the manipulation checks give little suggestion of this, it is a possibility which cannot be ruled out[2].

Another, more general, gap in the story is left by the emphasis on dispositional measures of self-attention. Since it is clear that these may be related to other characteristics (e.g. neuroticism) it would be desirable to reproduce the effects of self-consciousness using experimental manipulations. In addition, it will be recalled that

Carver and Humphries (1981) and Froming and Carver (1982) only found reference group related biases among Public self-conscious subjects. Such biases have now been shown to exist in intergroup contexts. However, neither the Carver and Humphries nor the Froming and Carver studies were able to produce any effects when Public self-awareness was experimentally manipulated. Only Wicklund and Duval's (1971) own-voice feedback condition increased positive reference group behaviour, and that manipulation did not involve an audience to whom subjects could present their behaviour. Hence, there is some doubt remaining as to what might be the effects of Public self-attention on group and intergroup behaviour. The experiments reported in Chapter 5 confounded Public and Private self-attention as well as having an irrelevant audience (the experimenter) for intergroup behaviour. This problem is rectified in the design of the final experiment reported in this thesis.

NOTES

1. St. Claire and Turner (1982) conducted a minimal group experiment in which some subjects were merely asked to predict the behaviour of bona fide subjects, while others were explicitly told that the experiment was about prejudice. Only Control and Prejudice condition subjects discriminated, while those in all three conditions displayed fairness strategies. It was concluded that the data provided 'little support for the hypothesis that social categorisation effects are mediated by demand characteristics' (p. 314). However, post-experimental enquiry revealed that almost two-thirds of the subjects could not even recall what the study was about; casting doubt on the effectiveness of the manipulations. The view that fairness is the strategy which subjects think the experimenter expects of them is not really shown clearly by the St. Claire and Turner study. If anything, their Prediction condition reveals what subjects expect of one another.

2. A related weakness resides in the fact that any differences between conditions may be a consequence of the subjects' awareness that the intended audience for their answers was or was not the actual audience at the time. The following experiment was designed to avoid this confounding.

CHAPTER 10

EVALUATIVE CONTEXT, STANDARDS AND INTERGROUP BEHAVIOUR

INTRODUCTION

The experiments thus far described have each manipulated the context of intergroup behaviour. That is to say, the meaning of behaviour has been altered by leading subjects to focus on different aspects of the situation and on different standards for that behaviour. However, the effects of these independent manipulations have usually been qualified by variables associated with the subjects themselves: commitment to the group; self-consciousness; self-esteem; sex; and ingroup attributes. These variables seem to combine to create different evaluative contexts (as I shall call them).

The concept of evaluative context, as used here, is made up of three components. First, we should consider the nature of the evaluators present. Here, the relative expertise and size of the audience are important, as a more expert or numerous audience may increase a person's evaluation apprehension (cf. Cottrell, Wack, Sekerak and Rittle, 1968). Furthermore, the importance and relevance of the audience may vary. A display of ineptitude may have no consequences in front of an ingroup audience, but may bring the ingroup into disrepute if an outgroup audience is present.

The second component is the definition of the situation itself, and the implicit goals of those within it. For example, whether the actors are identifiable or anonymous may influence their willingness to engage in a variety of social acts (cf. Zimbardo, 1969; Diener, 1980; Latané and Darley, 1968). Here, the extent to which one is personally accountable for one's behaviour may be important. If the experimenter does not seem able to distinguish one's own efforts from those of others (Latané, Williams

and Harkins, 1979), or if one is contributing to a group effort (Sherif, 1969),the situation may be seen as non-evaluative in personal terms. Situations may also vary in terms of the standards of evaluation that they evoke. In a competition between two teams, the 'standard' required is pre-defined (i.e. to be better than the opposition), whereas in the case of a solo performer the standards must be a combination of self-defined and audience-defined ones (Abrams and Manstead, 1981). Another important situational variable is probably the actual behaviour or performance itself. That is, a good or bad, successful or failed, action will have consequences for future self-evaluations (Turner, Hogg, Turner and Smith, 1984).

The third component considered here is the subject's attributes. These may include abilities or existing skills (Abrams and Manstead, 1981), self-confidence, the propensity to be self-aware and self-evaluative, familiarity with other aspects of the particular evaluative context, and personal needs or goals (cf. Sarason, 1972; Wine, 1971).

The evidence which has accumulated from the experiments reported in earlier chapters suggests that these three components are important in the determination of intergroup behaviour. Generally, other research has also varied the evaluative context of group behaviour, but usually only one component of it at a time. The component chosen has tended to reflect the theoretical orientations of the researchers concerned.

Diener's (1980) deindividuation research has dwelled on the proposition that lack of self-awareness results from group membership, and leads to the disinhibition of behaviour. Self-awareness is decreased with anonymity and lack of identifiability, which are the independent variables in Diener's research. The situation is either intragroup, or interpersonal, as is the audience. What Diener seems to be doing is to use deindividuation to create intragroup behaviour and

individuation to create interpersonal behaviour, and then to treat self-awareness as a dependent variable. This self-awareness is then seen as the cause of behaviour. It may be that, if Diener had considered intergroup situations, he would have come up with different conclusions regarding the loss of identity in the group. More specifically, his assumption that loss of personal identity and being self-aware are mutually exclusive states could be called into question.

Another branch of research which echoes Diener's approach is that informed by social impact theory (Latané and Nida, 1981) and specifically on 'social loafing' (Harkins, Latané and Kipling, 1983). Here, the idea is that, as the distinctiveness of one's personal contribution decreases, so does the effort put in to making that contribution. The 'audience' is the experimenter, and variations in evaluative context simply involve varying the number of co-workers a subject believes are present. Latané infers the destructiveness of groups from the finding that they produce a decay in personal effort. He might have reached quite different conclusions if an intergroup context and social identification had been introduced. In such a situation the subjects might aim to achieve 'superior conformity of the self' to group goals (cf. Codol, 1975) and hence individuals' performances as group members might outstrip their performances when psychologically alone.

Both of these approaches limit the situational component of the evaluative context to the intragroup, interpersonal and personal domains. Furthermore, subjects merely behave, and are not <u>subsequently</u> accountable in any way for their behaviour. In ignoring the communicative intention behind behaviour, the psychological self-definition of the subjects and the constitution of the audience, these approaches have inevitably resulted in rather barren accounts of group behaviour.

In contrast, intergroup researchers have viewed evaluative context

in terms of both the situational and audience components. This has typically meant setting up intergroup negotiations (see Stephenson, 1981) or competitions (Reid, 1983). One of the first studies relevant to the present discussion was that of Rabbie and DeBrey (1971). They had subjects in 3-person groups, which expected to meet with outgroups. Beyond this, the groups expected either to compete or to co-operate on a task, and that their representatives would do this either publicly (with all members present) or 'privately' (with other members absent). An interaction was obtained such that in the 'public' condition ratings of both in and outgroup were enhanced in the co-operative context, whereas in the 'private' conditions these ratings were enhanced in the competitive context. Rabbie and DeBrey were only able to speculate about the reason for this pattern of results, including the possibility that the public condition 'reinforces whatever intergroup orientation exists in the group' (p. 249). In fact, even the 'private' condition involved accountability to ingroup members and anticipated interaction with an outgroup member. The public and private conditions both entailed the presence of an outgroup audience, but the public condition introduced a physically present ingroup audience. The fact that the ratings of both in and outgroup followed the same pattern suggests that subjects may have been responding to the situation as much as to group membership. Note that a similar pattern of results (i.e. ratings of both the ingroup and the outgroup being influenced in the same direction by each condition) was obtained in both the MIXCOLLEGE and the BOYCOLLEGE studies. Ingroup presence, then, renders co-operation more positive, whereas ingroup absence renders competition more positive. Another way of describing this is that subjects felt happier about their representatives behaving in a hostile and competitive way on their behalf (private condition) than about being seen to do so themselves

(public condition). In contrast to the deindividuation studies it seems that, in intergroup contexts, the greater the number of people that are physically present the less aggressive or disinhibited they may feel.

Stephenson (1981) reviewed the research on bargaining and negotiation. Here, the emphasis was on the situational (interpersonal and intergroup aspects) and personal (skills, strength of case, style) components of the evaluative context. (The audience was assumed to be the outgroup.) Stephenson and Brotherton (1975) found that,whereas negotiations between single representatives tended towards compromise, those between ingroup pairs and outgroup pairs tended towards competition and winning/losing. The competitive orientation seemed to be enhanced by a reduction in awareness of the outgroup as individuals, as also shown by the fact that telephone negotiations tend to be tougher and more competitive than face-to-face ones (Morley and Stephenson, 1970, 1977). Stephenson (1981) points out that negotiators face a problem - 'the integration of their intergroup and interpersonal relationships with the opposition' (p. 191). An important step was Stephenson's suggestion that a negotiator could adopt an interpersonal style even with intergroup goals, and that these two components could function independently of one another. Specifically, negotiators with a weaker case gained by appealing to 'interpersonal norms of reciprocity' which prevailed in a face-to-face negotiation (Morley and Stephenson, 1977). In fact, the Stephenson and Brotherton (1975) and Morley and Stephenson (1977) results can be re-explained in terms of depersonalisation. Given a competitive intergroup evaluative context the depersonalised representatives (those in pairs or on the telephone) were behaving in an assertive and competitive way, whereas the personalised representatives were behaving in a more co-operative and interpersonally accommodative way. Therefore, the

bargaining studies discussed by Stephenson (1981) may help fill in the 'intergroup gap' in the work of deindividuation researchers. However, there is still the problem that neither branch of research has unconfounded subject and audience components of the evaluative context.

In deindividuation research the audience is always intragroup or interpersonal, and is generally in the same state as the subject. In bargaining research both sides have one or both have two (etc.) representatives, and the outgroup is always (or potentially always) present. In the latter, it is hard to say whether a shift from intergroup to interpersonal styles of behaviour results from a personalised audience, a personalised subject, or both.

One purpose of the present experiment is to keep the subject components constant while manipulating the audience and situation components of the evaluative context. Specifically, situational evaluative cues were designed to direct attention to public, private or no standards by means of video feedback, a mirror and alone conditions, respectively. The second situational component, which also provided a standard for comparison, was a record of outgroup and ingroup performance. Half of the subjects were in winning ingroups and half were in losing ingroups (subjects not being told how well their group had done, but being able to surmise this from the evidence)[1]. The audience component was varied by having subjects believe that their intergroup behaviour was being viewed (in the video feedback conditions) solely by ingroup members, solely by outgroup members, solely by the experimenter or (in mirror and control conditions) by nobody but themselves. The subject component was constant (all subjects belonged to the same category and were among a group of social science students),although dispositional differences in self-evaluation (private and public self-consciousness, and self-esteem) as well as ingroup identification were used in the

analyses.

Overview and derivation of hypotheses

An experiment was designed in which social science students were ostensibly being compared with natural science students on a group task involving 'reasoning skills'. After seeing a video (no sound track) of the 'previous group of natural scientists' in discussion, groups of 3 to 5 social science students were given 20 minutes to produce arguments for and against the statement: 'Space exploration is a waste of resources.' These arguments were handed to the experimenter on a 'report form'. For the second phase of the study each subject was randomly sent to one of 5 rooms. In fact, each room was arranged to execute a different manipulation. Three rooms were set up with video cameras and monitors (video conditions). Subjects were given a copy of the natural science group's report form and were asked to complete the dependent measure booklets. In the video conditions subjects were led to believe that ingroup, outgroup, or no group members would subsequently view the film (VidIn, VidOut and VidCon conditions, respectively). A fourth room contained a row of mirrors which reflected the subject's image while he or she completed the dependent measures (Mirror condition), and the fifth room contained only a desk and chair (Control condition). Subjects were unaware of these different manipulations. The dependent measures included ratings of ingroup and outgroup reports, ingroup and outgroup traits and ingroup identification. The majority of subjects had been pre-tested, providing self-consciousness and self-esteem data as well as attitude statements,which were presented again in the experiment.

HYPOTHESES[2]

1. Effects due to Condition

a. Evaluation

i. The deindividuation hypothesis predicts decreasing ingroup bias as self-awareness is increased. Therefore Control subjects will be more biased than will those in the other conditions, since the latter all contain self-focus inducing stimuli.

ii. Alternatively, the social identification approach would predict the opposite of (i) above. If self-focused attention gravitates towards social identity it is likely that ingroup bias would be increased.

iii. The two audience conditions (VidIn and VidOut) are more evaluative than the others, and hence should produce the most extreme shifts of ingroup bias (the direction of which will depend on which of hypotheses ai and aii are correct).

b. Standards

i. The question of the direction of the effects depends on the standards to which subjects attend. Some researchers (e.g. Scheier and Carver, 1980) argue that video feedback directs attention to the public self, whereas mirrors direct attention to the private self. If the private and public standards for intergroup behaviour differ in some simple way all three video conditions should differ from the mirror condition, and both should differ from the Control condition.

ii. If public and private standards are the same, then the Control condition will differ from the others but the Video and Mirror conditions will not differ.

iii. If the standards are provided not by the manipulation of self-focus per se but by the cues associated with the self-focus, the three video conditions will differ from one another. The prevailing standards for the public expression of intergroup attitudes should vary depending on the group membership of the audience.

c. Consistency

To the extent that hypothesis bi is correct, the privately self-focused subjects of the Mirror condition will be more consistent (pre-test-test) in their attitudes and more veridical in their perceptions of groups than will the publicly self-focused subjects in the video conditions.

2. Performance of Group

i. Subjects will over-evaluate ingroup performance (cf. Ferguson and Kelley, 1974; Blake and Mouton, 1969).

ii. Evaluation of group performance will rise linearly with the quality of that performance.

iii. It is possible that 'failing' groups may compensate by becoming more cohesive (i.e. more identified) (cf. Turner, Hogg, Turner and Smith, 1984) or may show elevated ingroup bias on measures which do not relate to performance (cf. Lemaine et al., 1978).

3. Dispositional self-consciousness

a. Private

i. The only predictable main effect of private self-consciousness is that it will be positively associated with attitudinal consistency.

ii. Private self-consciousness may combine with other dispositional variables,such as identification,to exaggerate their effects.

b. Public

i. Public self-consciousness will be uncorrelated with attitudinal consistency.

ii. From the previous two experiments, and Carver and Humphries' (1981) study it is likely that public self-consciousness will be positively associated with ingroup bias in this intergroup context.

iii. Since public self-consciousness seems to render people susceptible to normative influence (Carver and Humphries, 1981; Froming and Carver, 1981) it will increase agreement with ingroup, and disagreement with outgroup attitudes.

iv. However, public self-consciousness will not combine with other dispositional variables to exaggerate their effects.

4. Self-esteem

As in the two previous experiments, it is anticipated that self-esteem will be positively associated with ingroup bias because of its effects on self-confidence in the expression of such biases.

PRE-TEST AND PILOT STUDY

The original aim of the study was to replicate the MIXCOLLEGE and BOYCOLLEGE experiments,but use more controlled manipulations of self-attention and audiences. It was felt that a useful start would be to identify the important groups, attitudes and values that were adopted by the intended subjects; i.e. social science students. To this end, the entire first year social science statistics course (n = 190) was asked to complete a set of questionnaires (see Appendix G1). These included 15 attitude statements in a Lickert (7-point scale) format, a self-description 9-point semantic differential, a list of causes against which subjects could place a tick for those they supported, and a list of nine items which subjects were required to rank 'according to how important a part of university education you think they are'. All of these items were designed to tap the profile of social science students' values, attitudes and self-concepts. An attempt was also made to elicit spontaneous self-categorisations by means of incomplete sentence stems. Subjects were asked to complete the following sentences:

'The group I identify with most strongly is ...';

'When I am in this group I ...';

'Most of my friends are ...';

'University students ...'.

After completing these questionnaires subjects filled in the EPI Form B, the Rosenberg Self-Esteem Scale, and the Self-Consciousness Scale (see discussion of UKC SURVEY 1983 in Chapter 4).

There were a number of significant effects of sex, which are of no concern here. A 2 (high/low Private self-consciousness) x 2 (high/low Public self-consciousness) MANOVA revealed a significant main effect for Public on the self-description semantic differential items ($F_{10,173} = 2.54$, $p < .01$). Highs described themselves as more

active (2.98) than lows (3.58) ($F_{1,182} = 7.10$, $p < .01$) and as less cold (7.12) than lows (6.32) ($F_{1,182} = 13.51$, $p < .001$). There were no other effects of self-consciousness.

The completed sentence stems were coded into a variety of categories (see Appendix G2). Between 40 and 56 subjects did not provide answers, depending on the sentence. By far the majority claimed to identify with idiosyncratic groups (friends, family) and abstract groups (thinkers) or no groups. In fact, only 51 subjects mentioned a social category, of whom only 8 specifically mentioned students. The majority of subjects said they felt at ease and less self-conscious in these groups (107), while some mentioned behavioural changes in the same vein (16). When referring to their friends most subjects merely said that they were good or nice or similar to themselves (102). Thirty-eight subjects described their friends in terms of social categories (age, being a student). Responses to the stem 'University students' were almost entirely evaluative, with roughly equal numbers feeling that they were positive (30), neutral (36) or negative (30). Although these data were interesting in their own right, they did not suggest any particularly relevant social categorisation for use in the main experiment. However, the ranking task did prove useful; there seemed to be general agreement that 'gaining qualifications' (modal rank = 1) and 'learning to think' (modal rank = 1) were the most important aspects of university, followed by 'meeting people' (4) and 'social life' (5). It therefore seemed appropriate to use a reasoning task as the focus for group activity and to use social science students as subjects.

MAIN EXPERIMENT: METHOD

Subjects

72 social science students (38 male, 34 female) participated in this experiment. These had signed up in advance. For each experimental session five subjects were recruited, although the actual numbers who turned up varied from three to five. A total of seventeen sessions was conducted. Each subject in a session was randomly assigned to a different condition from the others. Five natural science students served as experimental confederates by being filmed taking part in the group task. The design is shown below.

Experimental design

SEX	CONDITION					Row Totals
	Control	Mirror	VidControl	VidIngroup	VidOutgroup	
Male	5	9	7	6	11	38
Female	8	6	7	8	5	34
Column totals	13	15	14	14	16	72

Apparatus and materials

The experiment was conducted in the Social Psychology Research Unit (SPRU) at the University of Kent at Canterbury. SPRU has a suite of video studios and a console room from which the three studios can be monitored simultaneously. One of these is large, and was used as the group discussion room. All three studios were arranged so that a table and chair were placed opposite a wall-mounted video camera and a television monitor. The signal from each camera went to a separate console room monitor and then back to the monitor in that studio. Two other rooms were used for this experiment. One was an office which had a notice on the door, reading 'Writing experiment: Do not enter' in large blue letters. Inside were a desk and chair. The desk was against the wall and had a row of large (50 cm. x 30 cm.) mirrors propped

up facing the chair. On each of the mirrors there was a typed notice: 'PLEASE DO NOT REMOVE: Reserved for Mirror-Writing Study. R.R.' A fifth room contained only a desk and chair, with no other apparatus or notices.

A 'report form' was provided which was a sheet of A4 paper on which the groups were required to tick a box to indicate that they were social scientists rather than natural scientists. The form was blank apart from the reasoning problem 'Space exploration is a waste of resources', which was printed at the top.

Another report form, completed by the confederate group of natural scientists,was photocopied and used in the second part of the experiment (see Appendix G3).

Two dependent measures booklets were enclosed in a brown A5 envelope, a pile of which was left in each experimental room. Booklet 1 contained 5 A5 pages, which were randomly ordered. All of the items were concerned with evaluating the performances of in and outgroups. Subjects were required to circle a number (from 1, 'very', to 9, 'not at all') to indicate: how skilled each group was; how well and adequately they had performed; how well other social and natural science groups will perform; how important reasoning skills are in university education; and how well the task reflected reasoning skills. An inverse reward matrix ($^{60}_{0} \rightarrow {}^{0}_{60}$, in steps of 10) was included on which subjects were asked to award points to the two groups for their performances.

The second booklet contained six A5 pages, again randomly ordered. The items were designed to tap feelings about and attitudes towards social and natural scientists (without reference to task performance). Subjects were required to place an 'X' on a line (scored as a 9-point scale) to indicate how competitive and co-operative they felt to other groups (1 = very much, 9 = very little). Two pages presented bipolar

trait adjectives at opposite ends of a 9 cm. line. On one of these pages subjects were asked to show where they would place social scientists and on another page to show where they would place natural scientists. Eight traits were presented. Another page used the same format to ask how subjects felt about the group with which they had worked. The six bipolar adjectives selected were designed to measure affective aspects: pride, happiness, enthusiasm, anxiety and the sense of belonging. Two more pages contained attitude statements with which subjects were asked to express their agreement by circling a number (1 = strongly agree, 7 = strongly disagree). The first page contained seven statements, of which five had been presented in the pre-test session. These were included so as to enable tests to be made of hypotheses relating to intra-subject consistency (see above). The second page contained six statements, three of which were said to have been made by social science students and the other three by pure scientists. One of the social science, and two of the pure science, statements had been presented in the pre-test and had produced mean scores within 1 point of the middle of the scale. These were included to see how reference group information would be used.

A sheet of manipulation checks was constructed. This asked subjects about the apparatus in their experimental room, the audience for their video recording and a 9-point scale measuring how self-conscious (1 = very, 9 = not at all) they felt in their experimental room. All of the dependent measures are shown in Appendix G3.

Procedure

Two experimenters (who randomly took the role of E1 or E2 at each session) were paid to conduct this experiment. When the subjects for the session had all arrived at SPRU, E1 showed them to the video console

room, where E2 was waiting. En route, E1 asked them all if they were social science students, and concluded: 'Good, so you are all from the social science faculty.' Once in the console room, E2 introduced the experiment.

> 'We would like you to participate in an investigation into and an evaluation of reasoning skills among students. Part of our interest is in the differential performances of pure science students (those doing Physics, Biology, Chemistry, etc.) compared to those of social science students (those doing Psychology, Economics, Politics, etc.). There is actually very little research on these differences and it is likely that performance on the task we will give you is affected both by the verbal-intellectual skills and the knowledge of social science students and by the abstract-deductive thinking skills and knowledge of pure science students. Of course, so far we have no way of knowing how relevant these various abilities are. But this research is specifically looking at reasoning skills and not at any other aspects of intelligence.
>
> 'We will ask you to work as a group on a task designed to measure your reasoning ability. You will have 15 minutes to discuss the statement: "Space exploration is a waste of resources." In that time you must reach a consensus about how far you agree or disagree with the statement and the reasons why. At the end of the 15 minutes you should write, on the sheet provided, your views on the issue and the arguments behind those views. We will be analysing this later to assess the reasoning skills displayed. We will only be concerned with your reasoning abilities and not with what your particular views or judgements are. But it is important that you take the topic seriously and make the report a faithful reflection of your collective opinions. Just to give you an idea about what you will be doing, you can take a quick look at a video tape of the last group who did the task. They were all pure science students. Obviously, we can't play the sound as well as this would help your own performance.'

Here, E2 switched on the video tape of the natural science confederate group, which subjects watched on a television monitor, for about 20 seconds.

> 'It actually goes on for quite a while, but since we are rather short on time I'll just show you a short bit of the total tape.'

After making sure that all subjects understood the task, they were all escorted into the large video studio, and were asked to sit around a big table. The video camera had its cover on, and the television

monitor was switched off. E1 asked E2:

'Do you think it is worth filming them?', to which E2 replied:

'No, I don't think so; there's no need.'

This was to assure subjects that their performance during the reasoning task was not being monitored. E1 then continued with the instructions:

> 'Have you all understood what you have to do? O.K. Well, we don't want to interfere with your doing the task. What we'll do is to let you work on the task from when we sound a buzzer. Then we will press the buzzer again after 15 minutes, and (it does not matter how far you have got with the task) at that point you must get to work writing the report. You will have 5 minutes in which to do this. Then I'll come back in to collect it from you.'

E1 and E2 then left the room. As stated, a buzzer was sounded after 15 minutes, and 5 minutes later E1 and E2 entered to collect the report forms. E1 then explained that the second phase of the study required that the subjects be separated from one another:

> 'Right, now I'd like to split you all up into separate rooms so that you can answer some questionnaires without any interference from the others. So we will take each of you in turn to a room, while the others wait here till you are collected.

E1 took two subjects to the Mirror and Control rooms, and then, after delivering instructions, went to the video console room. E2 E2 took one subject to one video studio, removed the camera lens cap and switched on the television monitor. E2 then returned to take another subject to the second video studio, and finally returned to the large studio, where the same procedure was adopted for the remaining subject. (When fewer than five subjects participated allocation to rooms was still random.)

All subjects were asked to sit at a desk. In the Mirror condition E1 also mentioned that:

'I am afraid that, apart from the studios, this is our only other spare room in this building. As you can see, it is actually being used for one of our third year student's projects - on mirror writing, I think.'

In the Video conditions, E2 told each subject:

'Now, as you can see, we have a camera set up in here. What we will do is to film you - you will be able to see yourself on the monitor - while you are filling in these questionnaires. We have monitors in the other rooms too, so we will be filming the others at the same time.'

VidIn condition subjects were also informed that:

'When you have all finished filling in your questionnaires you can all come back and have a look at yourselves together on the monitor in the console room. So you will be able to see what the rest of your group were doing and they will be able to see what you did.'

VidOut condition subjects were told:

'We'll be using these recordings to show to the next group of pure science students who take part in this investigation - like the film you saw, but later on in the proceedings - so they will be able to see what you and the rest of your group were doing.'

VidCon condition subjects were told:

'We're just doing this for your interest really - so you can see the equipment working, and so on. We won't be recording or anything like that, so no one else will see what you do.'

In all 5 conditions subjects were then given a copy of the outgroup's report form and the dependent measures. The experimenter explained:

'We've photocopied the summary produced by those pure science students for you to have a look at because we are interested to see how you think theirs and yours compare in various ways. Once you have looked over it can you open your envelope and answer the questionnaires in order (Booklet 1, then Booklet 2). This should take you about 15 minutes in all. So I'll come back then and see you and you can rejoin the others.'

The experimenter then left the room and returned to the console room. In fact, in the Video conditions, as soon as subjects began to open the dependent measure booklets the camera moved, focused and

zoomed in on the booklet and then panned back to the subject's face. This shift continued for the duration of the session. As a result, subjects in these conditions were confronted with their own image and close-up views of their resppnses on the large television monitors. The whir of the camera motors reminded subjects of this continuous scrutiny. When all subjects had completed their booklets they were brought back to the main studio, where the camera and monitor had been switched off again. At this point subjects were still unaware of the differences between rooms, and they were asked to complete the manipulation check sheet. These were placed in the envelopes with the dependent measures, and subjects wrote their name on the back of the envelope. Each envelope was pre-coded according to which room it had been in. The data and time of the session were also noted.

Subjects were debriefed together in the console room. None had guessed the true purpose of the experiment, and none objected to the deception. Each was paid £1 and sworn to secrecy until the end of term (December 1982).

RESULTS

The dependent variables were analysed in five sets. These were: EVALUATIVE ratings (i.e. items in Booklet 1, evaluating the task and groups' performances); TRAITS (i.e. the semantic differential descriptions of social science and natural science students); AFFINITY (subjects' expression of attachment and affect towards their specific ingroup); ATTITUDE statements; and REFERENCED statements (i.e. those whose source was specified as either the outgroup or ingroup).

On the EVALUATIVE and TRAIT ratings, difference scores (ingroup rating minus outgroup rating) were calculated, and were also summed to produce total EVALUATIVE differentiation and total TRAIT differentiation

scores. The AFFINITY ratings were also summed to produce an index of positive affect towards the ingroup.

These sets were each entered into MANOVAs, and the summed scores were analysed by ANOVAs. The data were initially analysed by Sex and Condition, and then by combinations of the remaining independent variables. As there were no significant effects due to sex, this factor was collapsed and will therefore receive no further mention. The hypotheses will be examined in the sequence that they were stated above.

1. Conditions

Hypotheses ai and ii and bii all predicted that the Control condition would differ from the other four conditions because the latter all induced self-awareness.

Hypotheses aiii and biii both predicted that the three Video conditions would differ from one another because of the different evaluative cues in each.

Hypothesis bi merely predicted that the Control, Mirror and Video conditions would differ since they produced no, private, and public self-awareness, respectively.

In fact, there were no significant multivariate effects of Condition (summarised in Appendix G4). One of the total scores did differ between conditions, however. On the AFFINITY ratings the most positive were in the VidCon condition and the most negative were in the VidIn condition ($F_{4,66} = 2.53$, MSe = 29.23, $p < .05$). The means are shown in Table 10.1.

Table 10.1

Summed affinity ratings

	CONDITION				
	CONTROL	MIRROR	VIDCONTROL	VIDINGROUP	VIDOUTGROUP
(n)	13	15	14	14	15
$\bar{x}$	20.62	18.4	17.43	23.07	20.33

Clearly, hypotheses ai and ii and bi and ii are not supported. Hypotheses aiii and biii will be explored more extensively below.

2. Performance of group

Two independent judges were asked to assign scores to the reports produced by all of the groups, including the report produced by the natural science confederates. The criteria were the same as those given to the subjects themselves (i.e. reasoning skills). Both judges placed the natural science report in the middle of the range (10th). Thus half of the groups had performed successfully (9) and half had failed (8) relative to the outgroup product with which they were presented. The rank correlation between the two sets of judgements was $r = .85$ ($n = 17$, $p < .001$)[3].

It was hypothesised that subjects would generally over-evaluate ingroup product. Such an effect would have been evident from a significant repeated measure difference between ratings of in- and outgroup performance. In actual fact, none of these was significant, and the total EVALUATIVE differentiation score was -0.44, which was not significantly different from zero ($t_{68} = 0.89$, sd = 4.12, $p > .1$).

Hypothesis ii suggested that subjects' evaluations would actually reflect the standard of their group's report. As the correlation table in Appendix G5 shows, subjects' ratings of ingroup report adequacy and

outgroup report quality were oppositely correlated with real ingroup performance (rs = .25, -.27, ps < .05). Furthermore, a repeated measure ANOVA (Group Performance x Ingroup/Outgroup ratings) on quality of performance was also significant ($F_{1,65}$ = 5.73, p < .05). The outgroup performance was downgraded by successful groups and upgraded by unsuccessful groups (relative to ingroup performance). This hypothesis has therefore been supported (see Appendix G5).

Hypothesis iii predicted that, on non-evaluative measures, group performance could be inversely related to ingroup bias, since failing groups would have a greater need to bolster their self-esteem. The TRAIT ($F_{16,51}$ = 2.25, p < .05) and TRAIT differentiation ($F_{8,59}$ = 3.11, p < .005) scores produced significant effects on MANOVAs, both when group performance was the only independent variable and when private and public self-consciousness were included (see Appendices G5, G6). Contrary to Turner et al.'s (1983) ideas, successful groups displayed more ingroup bias than did unsuccessful groups by rating social scientists as relatively warmer, friendlier and less competitive. This pattern is neatly summarised by the significant ANOVA on the summed TRAIT differentiation score. Successful groups differentiated more (8.16) than did unsuccessful groups (4.57) ($F_{1,67}$ = 7.69, p < .01).

3. Self-consciousness

Only 58 of the 72 subjects had provided their names (on request) in the pre-test. Therefore, the self-consciousness, self-esteem and attitudinal consistency analyses were all performed on this reduced N^4.

a. Private

The data were analysed by 2 (high/low median split Public) x 2 (high/low Private) MANOVAs. Hypothesis i was that Private

self-consciousness will be positively associated with attitudinal consistency. On the plain ATTITUDE statements test-re-test difference scores there was a significant multivariate effect ($F_{5,32} = 2.35$, $p < .06$). Highs were more consistent in their attitudes to Maths. and Sciences (0.47) than were lows (1.22) ($F_{1,36} = 9.81$, $p < .005$), consistent with the hypothesis (see Appendix G6).

Hypothesis ii will be dealt with below.

b. Public

Hypothesis i was that Public self-consciousness will be unrelated to consistency. There was no evidence to contradict this hypothesis (see Table 10.2, below).

Hypothesis ii suggested that Public self-consciousness will be associated with ingroup bias. There was no evidence of this from the ANOVAs or MANOVAs. Indeed, although Public self-consciousness was positively associated with the AFFINITY total score ($r = .27$, $n = 57$, $p < .05$), it was negatively associated with the total TRAIT differentiation score ($r = -0.25$, $n = 55$, $p < .05$).

Hypothesis iii predicted that Public self-consciousness will be associated with reference group behaviour. On the REFERENCED attitude statements there was a significant multivariate effect of Public ($F_{6,49} = 2.29$, $p < .05$). However, there was also a significant MANOVA on the plain ATTITUDE statements ($F_{7,44} = 2.70$, $p < .05$). As can be seen from the means (in Table 10.2), high Publics were always closer to the midpoint of the (7-point) scale than were lows, irrespective of the source of the statements.

Table 10.2

Main effects of Public self-consciousness on Attitude items (df = 1,54)

Reference	Statement	Public Self-consciousness High (32)	Low (26)	F
Social Science	Anti-Nuclear Energy	3.56	2.65	4.08*
" "	Creativity	4.03	3.23	4.48*
Natural Science	Pro-Nuclear Energy	4.13	5.27	7.33**
" "	Anti-Denationalisation	4.13	3.23	3.55†
None	Education	4.03	4.88	5.11*
	Women	4.52	3.40	5.38*
	Maths. & Sciences	4.58	5.46	7.25**

† $p < .10$
* $p < .05$
** $p < .01$

Therefore, hypothesis iii received no support; hypothesis iv will be discussed below; there were no significant Private x Public interactions.

4. Self-esteem[4]

42 subjects had completed the Rosenberg Self-Esteem scale in the pre-test. This is scored as a Guttman scale with values of 0 (highest) to 6 (lowest). Self-esteem was significantly correlated with a number of dependent measures (see Appendix G7). These are encapsulated by the correlations with the summed scores. Self-esteem was negatively associated with EVALUATIVE differentiation ($r = -.27$, $n = 42$, $p < .05$). In other words, subjects with lower self-esteem expressed more ingroup bias when comparing ingroup and outgroup reports than did highs. However, self-esteem was positively associated with differentiation in terms of TRAITS ($r = 0.31$, $n = 41$, $p < .05$), especially friendliness ($r = .46$,

$p < .001$). The hypothesis therefore receives mixed support.

5. Bias

As has already been discussed above, there was no overall bias on the EVALUATIVE items. While this may be explicable in terms of the cancelling out effect of ratings of differential group performance the assumption that subjects would show general ingroup bias has, as yet, attracted little support. When examining the TRAIT items five of the ingroup/outgroup ratings differed significantly ($p < .0001$) in Condition x ingroup/outgroup rating (repeated measure) ANOVAs[5] (see Appendix G8). This was reflected by the fact that the summed TRAIT differentiation score (6.57) was significantly different from zero ($t = 9.76$, $sd = 5.55$, $p < .001$). In addition, subjects reported significantly positive AFFINITY to their actual ingroup. The summed AFFINITY score combined 5 items on 9-point scales (a neutral total score would be 25), the grand mean of which was 19.94, which is significantly more positive than 25 ($t_{68} = 7.20$, $sd = 5.79$, $p < .001$).

In addition to these effects the two REFERENCED attitude statements which were attributed to social scientists both produced significant shifts towards agreement from pre-test positions in the repeated measure ANOVAs. No such shifts occurred on the statements attributed to natural scientists (see Table 10.3 below).

Table 10.3

Pre-test Experiment responses to REFERENCED Attitude statements (df = 1,37)

Reference	Statement	Pre-test	Experiment	F
Social Science	Education	2.45	1.93	13.75***
" "	Anti-Nuclear	4.17	3.21	19.05****
Pure Science	Pro-Nuclear	4.43	4.64	0.86
" "	Anti-Denationalisation	4.21	4.00	0.41

*** $p < .001$
**** $p < .0001$

REVIEW AND FURTHER ANALYSES

There were no impressive overall effects of Condition, although hypotheses concerning the Video conditions have yet to be examined. One significant effect on the summed AFFINITY ratings suggests that the VidCon and VidIn conditions produced different responses.

Group performance was a reliable predictor of both EVALUATIVE ratings of ingroup and outgroup performance, and of ingroup bias on other measures. There was no evidence of over-evaluation of ingroup product, or of cohesion and ingroup bias resulting from failure.

Private self-consciousness was associated with attitudinal consistency, as predicted. Public self-consciousness was associated with attitudinal neutrality,but not with reference group behaviour, thus contradicting Carver and Humphries' (1981) findings.

Self-esteem was associated with ingroup bias on the TRAIT items, but with outgroup bias on the EVALUATIVE items. This result is not directly compatible with any hypotheses advanced.

Bias was evident on TRAIT items, but not on EVALUATIVE items. Subjects felt relatively identified and affiliated with the specific group with which they had worked. Clear evidence of reference group

behaviour was exhibited on the REFERENCED attitude statements, rendering the absence of an effect of Public self-consciousness on these items all the more surprising.

Condition

Hypotheses aiii and biii predicted that the Video conditions might differ either in their potential to produce evaluation apprehension, or in their capacity to evoke different standards for behaviour. Owing to the lack of directional hypotheses concerning these differences it was thought that a post hoc discriminant analysis might illuminate the nature of any differences that did exist between Video conditions. The data from these three conditions were therefore entered into a discriminant analysis (BMDP), and this yielded one significant discriminant function ($\chi^2 = 38.96$, $df = 12$, $p < .0001$). The discriminating variables are presented below in Table 10.4, from which it can be seen that seven dependent measures are used to classify correctly 76% of cases. The clearest discrimination was between the VidIn and VidCon conditions. Subjects in the former were less positive about social scientists or about their actual group than were the latter. The VidOut condition fell between the two. It therefore seems likely that these conditions did not merely switch on self-presentation via public self-attention, but that the nature of the audience played an important role. What is perhaps surprising is that subjects were least favourable to social scientists when the ingroup was watching!

Table 10.4

Discriminant analysis using the three video conditions

Item	F to enter	Wilk's Lamda	P<	VidControl	VidIngroup	VidOutgroup
SS competitiveness	5.18	.62	.01	6.36	4.93	5.20
Sense of belonging	3.09	.52	.005	3.71	5.00	4.63
SS warmth	2.91	.47	.001	2.86	3.56	3.53
SS passivity	2.42	.41	.001	4.79	6.00	4.73
Sense of pride	2.43	.36	.001	4.00	4.71	4.60
PS competitiveness	2.71	.30	.001	4.43	3.71	4.00

Functions Removed	Eigenvalue	Canonical Correlation	Wilk's Lamda	Chi-square	P<
0	2.06	0.82	0.30	38.96	.0001
1	0.08	0.28	0.93	2.64	-----

Standardised Discriminant Function Coefficients

Function	1	2
SS passivity	.57	.83
SS competitiveness	-.75	.38
SS warmth	.79	-.35
PS competitiveness	-.49	-.45
Sense of pride	.59	.00
Sense of belonging	.81	-.03

76.3% of known cases correctly classified.
Chi-square = 31.59 p > .0001

Classification Table

Actual Group Membership	Predicted group membership: VidControl	VidIngroup	VidOutgroup	N*
VidControl	10	0	2	12
Row percent	83%	0%	17%	
VidIngroup	0	9	3	12
Row percent	0%	75%	25%	
VidOutgroup	2	2	10	14
Row percent	14%	14%	71%	

*These are reduced due to missing data on some items.

Self-consciousness

Hypothesis ii for Private and iv for Public self-consciousness concerned their interactions effect with other factors. While cell sizes were too small to examine Self-consciousness x Condition effects, it was possible to examine those of Self-consciousness x Group performance, using MANOVAs (wherein all main effects of Private and Public self-conscious reported earlier remained significant).

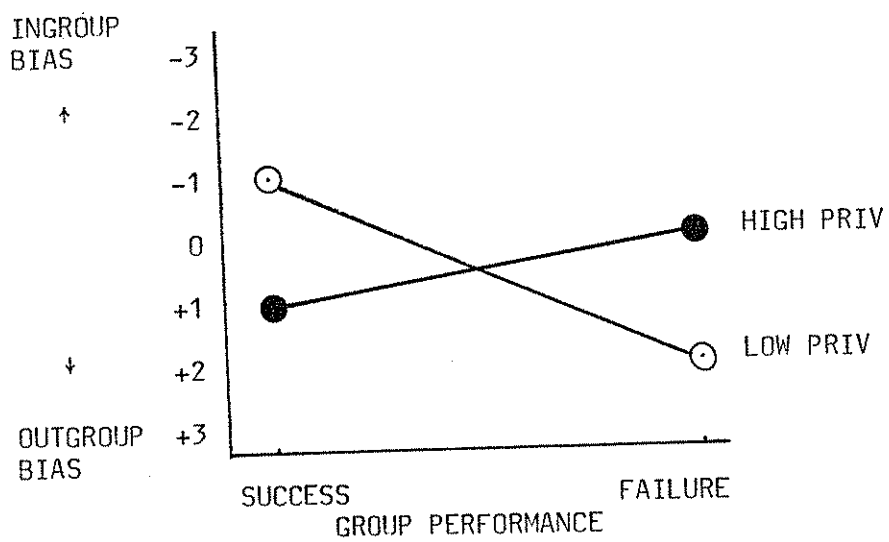
There were no significant Public x Group performance interactions, but a significant multivariate interaction was obtained between Private and Group performance on the EVALUATIVE ratings ($F_{10,40} = 2.70$, $p < .05$), as well as on the EVALUATIVE differentiation scores ($F_{3,48} = 2.88$, $p < .05$). As can be seen in Table 10.5, high Privates regard the task as more relevant, and give the ingroup relatively more points after a successful than after a failed performance. Among the lows performance has little impact. However, when rating the adequacy or quality of that performance highs seem to be less favourable to the ingroup after a successful performance than after a failed one. Among lows this pattern is clearly reversed. This pattern is summarised by Figure 12,which depicts the significant Private x Group performance interaction which was obtained on the summed EVALUATIVE differentiation score ($F_{1,56} = 4.33$, MSe = 15.32, $p < .05$).

Table 10.5

Means for significant Private self-consciousness x Group performance interactions

Variable	Performance self-cons. (n)	Successful High 15	Successful Low 12	Unsuccessful High 15	Unsuccessful Low 16	MSe	F
Evaluative ratings							
Relevance of task skills		3.27^{a}	4.50	5.33^{b}	4.69	2.92	4.00*
Reward allocation		3.73^{a}	4.17^{b}	4.50^{c}	4.06^{b}	0.62	4.14*
Adequacy of ingroup performance		5.13	4.08^{a}	4.87	5.56^{b}	1.98	8.19**
Difference in adequacy ratings		0.73	0.08	-0.20	-1.13	3.39	4.58*
Difference in product ratings		0.20^{b}	-1.00^{a}	0.07^{b}	0.31^{b}	1.71	3.73†
Pre-post attitude differences							
Features of society		0.50^{b}	1.70^{a}	0.90^{b}	1.00^{b}	6.79	5.53*
Drama and arts		1.88^{a}	0.73^{b}	0.80^{b}	1.25	0.78	8.00**
Total EVALUATIVE differentiation score		1.07	-1.00	0.00	2.00	15.32	4.33*

† $p < .10$
* $p < .05$
** $p < .01$
Means with different subscripts in a row differ significantly (Newman-Keuls, $p < .05$).



$F = 4.33$, $p < .05$

Figure 12: Private self-consciousness x Group performance interaction on the summed EVALUATIVE differentiation score

It was felt that Private and Public self-consciousness might also interact with group identification, given the prominent role of identification in the MIXCOLLEGE and BOYCOLLEGE experiments. The AFFINITY summed score was used as the index of experimental ingroup identification and a median split was performed upon these[4]. 3-way (Private x Public x Identification) MANOVAs were used to analyse the other dependent variables. All previous main effects persisted, but there were two significant Private x Identification multivariate interactions (see Appendix G9). These were on the EVALUATIVE items ($F_{10,39} = 2.60$, $p < .05$) and on the EVALUATIVE differentiation items ($F_{3,47} = 3.26$, $p < .05$). The pattern was clear and consistent, as can also be seen in Table 10.6,below. Amongst the highly identified subjects the high Privates gave more ingroup reward, and downgraded outgroup performance more than did low Privates. This pattern was reversed among non-identified subjects. This suggests that high Privates were particularly sensitive to their feelings about their actual ingroup, and evaluated its performance accordingly.

On the EVALUATIVE differentiation scores there was also a significant multivariate Public x Identification interaction ($F_{3,47} = 4.79$, $p = .005$). Here, high Publics differentiated weakly in favour of the ingroup, but the difference between highly and unidentified subjects was negligible. Among the low Publics high identification was associated with ingroup bias, whereas non-identification produced outgroup bias. This suggests that only low Publics behaved in accordance with their identification, the highs being more cautious, perhaps (see Appendix G9).

The patterns of multivariate interactions were also reproduced by the ANOVA on the summed EVALUATIVE differentiation scores. As Table 10.6,below, shows, both Private and Public self-consciousness interacted significantly with Identification, although no significant 3-way interaction

occurred. The means and cell sizes for these interactions are provided in Table 10.6, and the ANOVA effects are shown below in Figures 13 and 14.

Table 10.6

Significant interactions from the Private x Public x Identification ANOVA on the summed EVALUATIVE differentiation score (MSe = 11.84, df = 1,47) [6]

		Identification				F
		High	(n)	Low	(n)	
Private Self-Consciousness	High	-1.53_a	(15)	2.60_b	(15)	8.02**
	Low	1.18^a	(11)	0.38^b	(16)	
Public Self-Consciousness	High	1.00_b	(15)	0.82_b	(17)	9.87**
	Low	-2.27^b_a	(11)	2.21^b_b	(14)	

** $p < .01$
Means with different subscripts differ significantly (Newman-Keuls, $p < .05$).

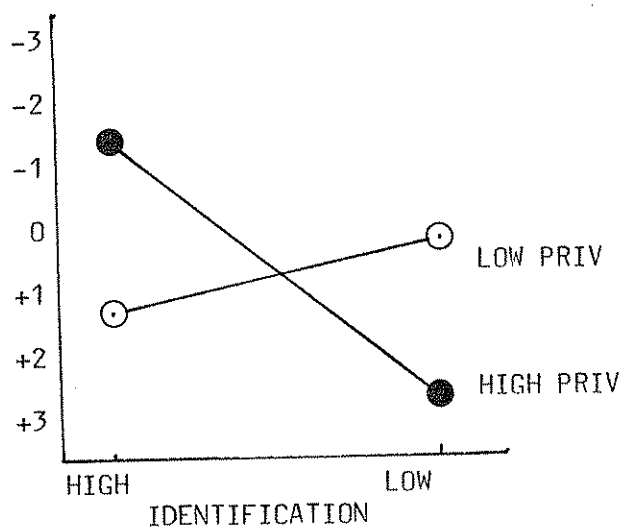


Figure 13

$F = 8.02$, $p < .01$

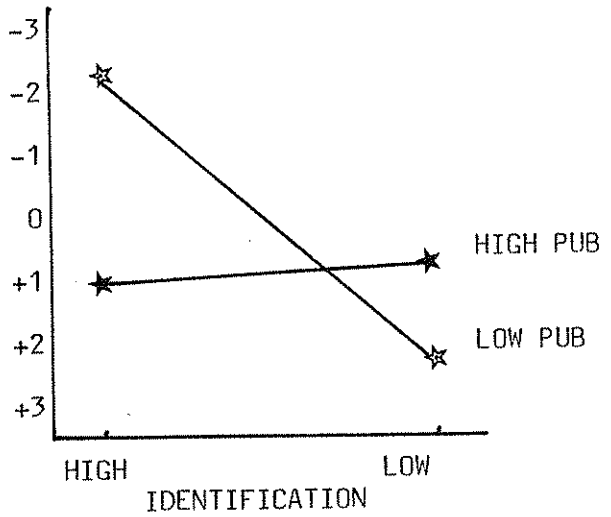


Figure 14

$F = 9.87$, $p < .01$

Key: PRIV = Private self-consciousness
PUB = Public self-consciousness

Figures 13 and 14: Interactions between Identification and Public and Private self-consciousness on the summed EVALUATIVE differentiation score

There were no significant Condition x Identification interactions, perhaps due to the small cell sizes. Nor were there any significant main effects of Identification, which is perhaps more surprising.

Self-esteem

In order to explore the effects of self-esteem further, subjects were divided by median split into 'high' (n = 23) and 'low' (n = 19) scorers. Self-esteem was then introduced into ANOVAs with each of the other independent variables in turn. A significant interaction between self-esteem and identification (derived from the AFFINITY scores) was obtained on the total TRAIT differentiation score ($F_{1,37}$ = 5.40, MSe = 29.22, $p < .05$). Among highly identified subjects those with high self-esteem were more biased towards the ingroup than were those with low self-esteem; this pattern was slightly reversed among non-identified subjects (see Table 10.7 below).

Table 10.7

Self-esteem x Identification interaction on the summed TRAIT differentiation score

		Self-esteem			
		High	(n)	Low	(n)
Identification	High	9.00	(13)	2.88	(8)
	Low	3.78	(9)	5.64	(11)

Manipulation checks

Subjects were asked about the apparatus in the room in which they were alone. They were also asked about the audience for their behaviour. All of these measures confirmed that subjects were aware of the manipulations appropriate to each condition (see Appendix G10). Of greatest importance was the extent to which each condition rendered the subjects self-aware. Self-reports of how 'self-conscious' subjects

felt differed significantly between conditions ($F_{4,68} = 11.18$, MSe = 3.71, $p < .0001$). A (Newman-Keuls) comparison of means in Table 10.8 (below) indicated that the Mirror and Control conditions did not differ, and the VidIn and VidOut conditions did not differ. Between these extremes was the VidCon condition, which differed significantly from both pairs of conditions.

Table 10.8

Subjective self-consciousness by Condition

Control	Mirror	VidCon	VidIn	VidOut
7.64_a	7.60_a	5.86_b	4.29_c	4.25_c

Means with different subscripts differ at $p < .05$.

This result is important since it helps to distinguish between support for hypotheses about the Manipulations. Specifically, it seems that the evaluativeness of the conditions distinguishes between them, and that both ingroup and outgroup audiences have the same potential to induce self-awareness. Any differences between the VidIn and VidOut conditions must therefore be attributable to the different standards which were invoked. In contrast, differences between VidCon and both VidIn and VidOut conditions are as likely to be a result of differences in self-attention as in standards.

DISCUSSION

The main results of this experiment are easily described. Ingroup bias was most evident in the ratings of ingroup and outgroup TRAITS. The only sign of an effect of Condition was on the summed score from AFFINITY ratings. Further analyses demonstrated that the VidIn and VidOut conditions were clearly discriminable from the VidCon condition in terms of responses to certain TRAIT and AFFINITY ratings. When being

video recorded, subjects with an ingroup audience displayed less positive sentiments towards that group than when no group members were an audience. Surprisingly, there were no significant overall ingroup biases on performance evaluations.

Successful and failed performance did influence ratings of the ingroup and outgroup; but only on TRAIT ratings. This renders even more surprising the fact that even successful groups did not favour the ingroup when evaluating ingroup and outgroup performances. What they did, instead, was to describe social scientists in more glowing terms than did the failing groups. One reason for the absence of main effects on the EVALUATIVE ratings here was the curious interaction between group performance and Private self-consciousness. Performance evaluations reflected relative group performance among low Privates, but were unaffected by performance among high Privates. In sharp contrast, ingroup/outgroup reward allocations reflected relative performance among high Privates, but not among low Privates. The pattern of reward allocations fits in with Greenberg's (1983a, 1983b) findings that high Privates prefer equity more than lows, who prefer equality. The evaluations, on the other hand, seem to reflect the opposite tendency. This anomaly may be resolved using the concept of self-concern, which will be discussed below.

Another, perhaps more interesting, set of effects occurred on the EVALUATIVE ratings. When subjects were divided into high and low identified categories, high Private self-consciousness seemed to lead to evaluative bias in line with strength of identification. High public self-consciousness seemed to eradicate effects of identification. In other words, Private self-attention seemed to lock in to the self-definition while Public self-attention seemed to elicit socially neutral (and possibly self-presentational) behaviour.

These effects of Public and Private are consistent with the main effects of self-attention on the attitude items. Whether referenced or not, high Publics moderated their positions (against pre-test) to become more neutral. Lows did not. Conversely, high Privates stuck more religiously to their personally held attitude positions than did lows. Finally, the referenced items which were signified as emanating from an ingroup source did produce an overall shift towards agreement, irrespective of self-consciousness.

These results can be discussed in terms of the way that the evaluative context impinges on three general variables: the focus of attention (direction and amount); standards; and motivation. When self-awareness theory was originally elaborated by Wicklund (1975), much of the research was directed towards explaining social facilitation phenomena (Paulus, Annis and Risner, 1978), and evaluation effects (Cottrell, 1972; Henchy and Glass, 1968; Liebling, Seiler and Shaver, 1974). The arousal hypothesis (Berlyne, 1979) argues that performance follows an inverted U curve as arousal increases (that is to say, performance will be better under moderate arousal than under high or low arousal conditions),whereas the drive hypothesis (Zajonc, 1969) states that performance will be linearly related to arousal. Self-awareness effects fitted in with a drive model initially (Wicklund and Duval, 1971), but later on Wicklund (1975) suggested that too much self-attention could have a deleterious effect since insufficient attention would be paid to the task. This fitted in both with the arousal model and with the test-anxiety research (Sarason, 1978; Wine, 1971, 1980), which found that highly self-critical people tend to do worse than expected on difficult tasks[7]. Carver (1979) and Carver and Scheier (1981c) proposed that self-attention would impair performance when expectancies were low, since awareness of possible failure led to a

withdrawal from the situation. More recently, theorists have suggested that 'self-concern' can reverse the effects of self-awareness (Aderman and Berkowitz, 1983; Sandelands and Calder, 1984; B. Stephenson and Wicklund, 1983).

The reasoning is made clear in B. Stephenson and Wicklund's (1983) paper. A moderate degree of self-focused attention enhances one's awareness of another person's perspective. Thus, in three experiments own voice feedback led to better performance on a perspective taking task than a no feedback control condition. However, when self-concern was introduced, by telling subjects that their responses were being analysed as part of a study on neuroticism, perspective taking worsened dramatically. B. Stephenson and Wicklund (1983) argued that 'when a highly salient aspect of self was brought into self-awareness settings ... the self-focus moves toward that dimension away from the more social considerations' (p. 75). This reasoning was backed up by the finding that, when completing the Davis and Brock (1975) and Wegner and Giuliano (1980) self-focus index, subjects' first person/plural ('I' versus 'we') ratios were 1.86 and 1.64 in the self-aware and self-concern conditions ('I' more prominent) but -0.58 in the Control condition ('we' more prominent). In sum, B. Stephenson and Wicklund's (1983) study can be described as one whose effects were attributable to variations in the situational component of the evaluative context. It therefore seems reasonable to examine the present experiment for similarities with theirs. It seems likely that the Mirror and VidCon conditions may have induced self-awareness, but not self-concern. The VidIn and VidOut conditions may have induced both self-awareness and self-concern. The Control condition should have induced neither. A reasonable index of self-concern is probably to be found in the self-reported self-consciousness measure. The mean AFFINITY total score for each condition

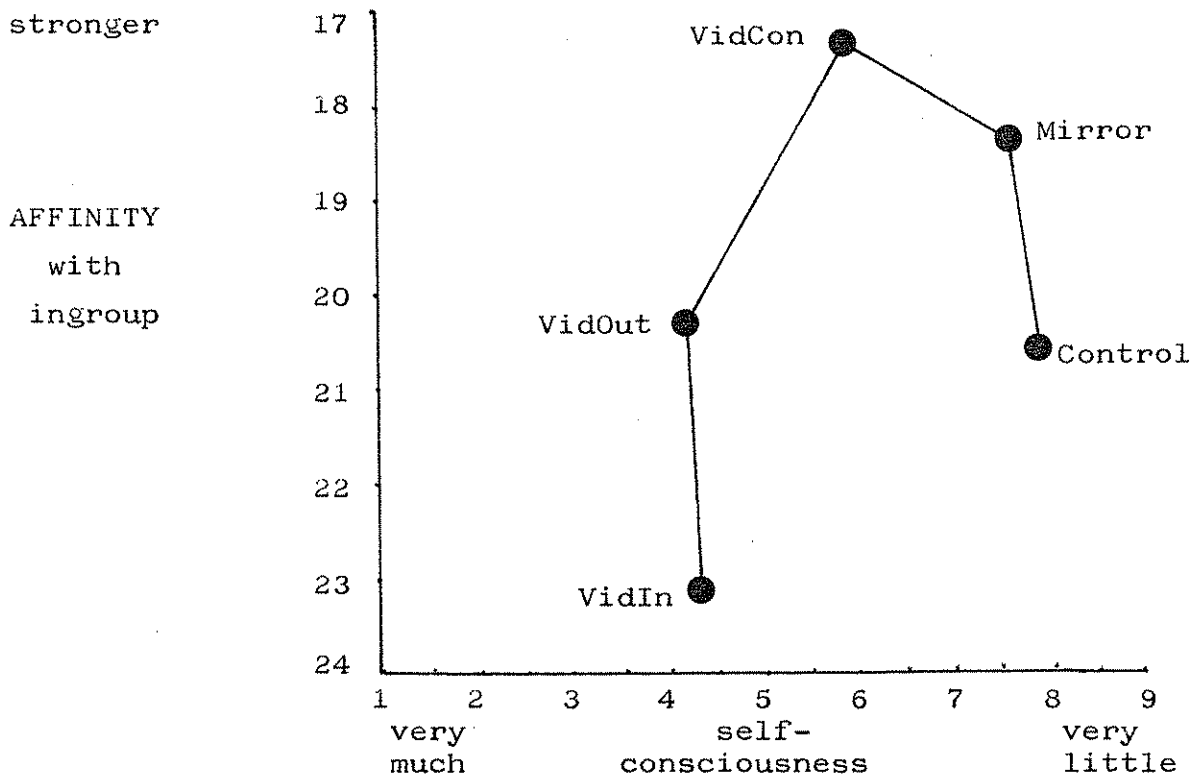


Figure 15: Self-reported self-consciousness plotted against affinity to group

can be plotted against self-rated self-consciousness, as shown in Figure 15 (above).

As can be seen from Figure 15, there seems to be some support for a self-concern explanation for these data. This is especially so when the discriminant analysis between Video conditions is examined. In this, the VidIn and VidOut conditions are closer together in their distinction from the VidCon condition. Given the high level of significance on the self-consciousness measure, it does seem plausible that the conditions may represent the continuum from non-self-awareness to high self-concern quite well. On the other hand, these data indicate that group affiliation was maximised in the self-focus/no self-concern conditions - the opposite of B. Stephenson and Wicklund's (1983) results. A plausible explanation for this will be suggested below.

B. Stephenson and Wicklund found no effects of Private or Public self-consciousness in their experiment, and concluded that: 'The utility of the self-consciousness items in the perspective-taking paradigm would seem to be questionable ...' (p. 73), and '... self-focused attention is not, through the nature of the onsetting stimulus, concentrated on any particular self-relevant aspect. Rather, self-focus can come to bear on whatever aspect of the self is prominent or salient at that time' (p. 75) (emphasis added).

In other words, they reject Scheier and Carver's (1980) distinction between Private and Public manipulations of self-focus. What these different types of self-focus are supposed to produce is adherence to different standards. Some effort has gone into demonstrating that Public self-focus increases the use of social over personal standards. For example, Diener and Srull (1976) found that subjects in a video condition adopted social standards more than personal ones, whereas controls did not. Hass (1984) asked subjects to draw an 'E' on their

foreheads during his three experiments. When subjects were either being filmed or tape recorded they were more likely to draw the E so that it was the right way round to an onlooker than they were in Control conditions. Furthermore, he argued that:

> 'If the Fenigstein et al. (1975) description [of Public self-attention] can be taken literally, as Mead intended his to be, and Public self-consciousness involves taking the external perspective of another person ...' (p. 793).

High Publics should outperform lows on this perspective taking task, as indeed they (marginally) did. There were no effects of private self-focus.

Unfortunately for the Scheier-Carver position, other researchers have demonstrated that mirror manipulations, and private self-consciousness, can increase the use of social standards as well as perspective taking performance. For example, Greenberg (1983a, 1983b) reported that mirrors/high Private self-consciousness encouraged equity, even at expense to self. Gibbons and Wright (1983) repeated Froming, Walker and Lopyan's (1981) finding that a mirror could increase agreement with a social standard (attitude statement), although it also maintained consistent behaviour with regard to a personal standard (pre-post correlation). Finally, Bernstein and Davis (1982) found that highly Private self-conscious subjects' self-descriptions were closer to those provided by observers than were lows. In contrast to Hass' (1984) results, high Public self-consciousness led to worse perspective taking. This was deemed to be:

> 'consistent with the results of Turner and Peterson (1977), and with the idea that high Public individuals' concern with winning social approval may reduce the validity of their self-descriptions' (Bernstein and Davis, 1982, p. 15).

The ambiguity of the relation between types of self-focus and standards is only increased by two other recent findings. In one study (Thornton, 1984) a mirror manipulation increased defensive attributions to a victim

of a sexual assault (in contrast to Duval and Wicklund, 1973), while another study (Sandelands and Calder, 1984) found that self-referenced recall was increased by the presence of a video camera and judges.

These last two studies both involved a degree of self-concern, or salience of personal aspects of self. Indeed, taken together, all of these experiments do provide support for B. Stephenson and Wicklund's idea that the manipulation of self-focus may be less important than the general evaluative context in which it arises.

Social, personal and non-identity

While B. Stephenson and Wicklund's (1983) analysis goes some way towards explaining the effects of Condition in the present experiment, there are still some problems. First, for them, self-awareness excludes group awareness (Footnote 3, p. 66),but in the present experiment self-awareness was associated both with maximised (VidCon) and minimised (VidIn) expressions of affinity with the experimental group. Second, the high self-concern conditions (VidIn, VidOut) and the lowest self-concern condition (Control) both showed evidence of moderation of ingroup bias. This suggests a degree of objectivity, or perspective taking, directly contrary to what B. Stephenson and Wicklund would have predicted.

Nor are the present results explicable simply in terms of self-presentation. If the reduced ingroup bias of the VidIn and VidOut conditions were due to self-presentational concerns then an increase in ingroup bias should have been evident in the Mirror and Control conditions, where such concerns were absent.

In Chapter 3, a model was proposed which integrated self-focused attention and social identification. A continuum was sketched out, at one end of which lay deindividuation, and at the other lay personal identity.

Supposing that the measure of self-rated self-consciousness was taken to represent that continuum, it might then be possible to describe the effects of conditions as 'identifying' effects. That is, subjects in the Control condition are relatively deindividuated, but as self-awareness increases so does awareness of social identity (Mirror, VidCon conditions). Once an audience is introduced personal aspects of the self become relevant due to the identifiability of one's individual contribution, and so commitment to the group wanes. This account is consistent with the idea that self-focused attention can enhance the effects of self-definition as a category member. However, it is not certain that Control subjects were deindividuated.

In order to resolve this problem it is necessary to return to Chapters 2 (review of Social Identity Theory) and 5 (minimal group experiments) in which two important points were made. First, personal and social aspects of identity may be independent, and may therefore influence behaviour simultaneously (see Stephenson, 1981). Second, attention can be conceptualised as being independent from salience. The present experiment was quite explicitly about intergroup comparisons. There is no reason why salience of group membership should have differed between conditions. Thus, even in the Control condition, with minimal awareness, social identity still exerted some influence (positive ratings of ingroup). On the other hand, the salience of personal self-images could plausibly be said to have varied between conditions. Specifically, in the VidIn and VidOut conditions subjects anticipated that their behaviour was to be scrutinised by a few other individuals. Furthermore, in the VidIn condition the subject was personally known by those individuals, and would meet them later. Thus individuated, the need for personal distinctiveness, and the salience of standards relating to the personal self-image, were increased. The relative

impact of the still salient social self-image was attenuated since attention was also focused on these personal aspects. In a nutshell, the measure of self-reported 'self-consciousness' may well have reflected the salience of personal identity.

Private and Public self-consciousness

Although experimental manipulations may all produce the same, non-directional, self-focus it is implausible that the dispositional measures are also effectively identical (cf. B. Stephenson and Wicklund, 1983). Since the Private and Public scales are factorially discrete it seems likely that subjects who score highly on each do tend to direct their attention to covert and/or overt aspects of self, respectively.

In the present experiment there was clear support for Scheier and Carver's (1981) claim that private self-consciousness homes in on self-definitive standards and goals, while Public self-consciousness centres on one's social and interpersonal performance. However, self-awareness theorists have always emphasised the insular, asocial and individualistic effects of private self-attention (Scheier and Carver, 1980; Froming and Carver, 1981; McCormick, 1979). The results of the present experiment reinforce the argument (see Chapter 1) that 'private' and 'public' are not synonymous with 'personal' and 'social', respectively. Specifically, high Private self-consciousness did lead to higher intra-subject attitudinal consistency (personal). However, it also polarised the impact of social identification on ratings of ingroup and outgroup performance (social), thereby reducing the veridicality of their self-reports on this matter (cf. Pryor et al., 1977). Therefore, it seems that high Privates were not motivated to be self-consistent per se but that they tried to conform their self-definitions in both the personal and the social domains. This result backs up the reasoning of Gibbons

and Wright (1983), but provides much more reliable evidence for the idea that private self-focus can dwell on 'social' standards.

For Public self-consciousness the effects seem to be a striving to be modest or neutral. The low Publics were more extreme in their attitudes, and moved less relative to pre-test than did highs. The lows also expressed ingroup bias in accordance with their social identification, whereas the highs remained neutral. Since these effects are collapsed across conditions (due to the small N) it is possible that highs' neutrality is actually a mean of five different strategies (depending on the audience). Therefore it can only be concluded that high Publics were not behaving in terms of self-definition and may have been attempting to present themselves as socially attractive individuals, free of bias or prejudice.

The pattern of intergroup behaviour and group performance

It is interesting to note that no general ingroup bias was exhibited on performance evaluations. One reason for this may have been that subjects had already been informed that the in- and outgroups could both be expected to do well, but that this would probably be due to strengths in different kinds of reasoning abilities. It may be that, given the pre-existing intergroup distinctiveness on these dimensions, there was no need to differentiate in terms of performance. Some evidence in support of this interpretation lies in the fact that TRAIT judgements did favour the ingroup overall. Hence, positive distinctiveness lay in the characteristics associated with the ingroup and outgroup, rather than in terms of their products. However, when the ingroup outperformed the outgroup both performance evaluations and TRAIT ratings exhibited more ingroup bias than when the ingroup failed. This indicates that the impact of group performance is distinct from

the basic motivation to attain positive distinctiveness. Clearly, one reason for this is that group product is an objectively assessible entity which subjects could not evaluate in an unrealistic fashion. In contrast, traits are hard to pin down, and represent an ideal vehicle for differentiation and stereotyping (Tajfel, 1981).

It seems reasonable to suppose that traits combine to produce the criterial attributes of group membership (Turner, 1982). Further evidence for this position can be found from the responses to the REFERENCED attitude statements in the present experiment. Only when the statements were attributed to social scientists was there a significant shift towards agreement relative to pre-test responses. This finding is made more convincing given that no such shifts occurred in the unreferenced or the outgroup referenced statements. Hence the shifts are not attributable to familiarity with the items. These results also help to distinguish between the normative and referent informational influence properties of intergroup behaviour. Carver and Humphries (1981) suggested that (normative) reference group behaviour was a matter of self-portrayal, and hence was dependent on Public self-focus. In the present experiment there were no reference group effects among high Public self-conscious subjects; indeed, these subjects tended towards neutrality in their responses. This suggests that the process influencing the responses to the social science attributed statements was indeed referent informational influence. These statements were taken as criterial attitudinal positions for group membership and, commensurate with their situational self-categorisation as social scientists, subjects naturally endorsed them.

The interactions between Private self-consciousness and group performance are intriguing. High Privates gave more rewards to a successful group and less to a failing group than did lows. In contrast,

high Privates gave poorer evaluations of a successful group and higher evaluations of a failing group than did lows. One explanation for these results is that high Privates were behaving equitably - giving rewards to a successful ingroup, but not being judgemental about relative performance. This idea is supported by the fact that the reward allocations were mirrored by perceptions of task relevance. Since highs felt more involved in the task when the group was successful they may have felt obliged to reward the ingroup (cf. discussion of dissonance in Chapter 3). Another possibility is that failure and defeat led to increased solidarity with the ingroup (Turner, Hogg, Turner and Smith, 1984), but only among high Privates (who were most keenly aware of their social identification). While highs felt obliged to give rewards in line with performance they compensated by devaluing the outgroup product when the ingroup had done badly. Although this explanation is admittedly post hoc it does make some sense in theoretical terms.

Self-esteem

Many of the explanations thus far advanced have relied on the assumption that self-esteem is a motivational variable which ties in with a need for positive distinctiveness. The correlational results indicate that high self-esteem was predictive of ingroup bias on the trait ratings. If these represent criterial attributes it seems safe to say that the confidence of high self-esteem subjects in terms of their global self-concept facilitated the advancement of their specific social identification. On the other hand, self-esteem was negatively associated with ingroup bias on performance evaluations. This result may be due to highs not needing to differentiate on such an unstable dimension, but lows grasping at the opportunity to gain positive

distinctiveness, albeit on a relatively transient social comparison. This reasoning is consistent with that of Turner, Sachdev and Hogg (in submission), who obtained similar results.

More information about the former effect was gained from the significant interaction between Self-esteem and Identification on the total TRAIT differentiation score. It was found that highly identified subjects were considerably more biased if they had high self-esteem than if they had low self-esteem. Amongst non-identified subjects self-esteem had little impact. This finding adds weight to the interpretation that self-esteem may underlie the confidence with which people strive to preserve positive self-images.

GENERAL CONCLUSIONS

These results suggest that a variety of different components interplay and combine when people engage in intergroup behaviour. The effects of Condition, while weak, show that varying degrees of evaluation can potentially flick the switch from personal to social identity, and back again. Furthermore, the results do not support Carver and Humphries' (1981) view that group behaviour is merely a matter of self-portrayal. If anything, the effects of Public self-consciousness seemed to show that self-portrayal is an individualistic strategy which sometimes obliterates intergroup considerations. In contrast, there seemed to be evidence that self-stereotyping and referent informational influence did occur, and Private self-consciousness appeared to heighten subjects' sense of their social identification. This experiment has reinforced Turner's (1982) argument that intergroup and intragroup behaviour are mediated by the salience of a social identification in the self-concept, and not just by normative interpersonal influences which are external to the individual.

NOTES

1. In fact, it was purely chance which produced this even split of successful and failed groups, since 'success' here was defined as quality of performance relative to the outgroup's. The latter was constant. Therefore, success and failure was not directly manipulated,but was incorporated as a factor in the design if it were of theoretical importance.

2. As with previous studies in this thesis, it is assumed that the social categorisation will lead to ingroup favouritism and bias.

3. The random allocation of subjects to conditions meant that there were no differences in performance ratings between conditions ($F_{4,72} = 0.14$, $p < .1$).

4. The Private and Public self-consciousness scales had reliability coefficients of $\alpha = .70$ and $\alpha = .74$ in this sample. An identification index was derived from a factor analysis of the AFFINITY items. A BMDP (1981 version, P4M) oblique rotation produced 2 factors which explained 50% and 17% (eigenvalues of 3.00, and 1.05), respectively. The first factor was composed of six items, whose loadings are shown here in brackets: Happy (.81); Enthusiastic (.79); Proud (.79); Positive (.75); and having a Strong Sense of Belonging (.71). The second factor was composed of: Anxious (.92); and having a Weak Sense of Belonging (.43). Hence, Factor 1 was used as the identification scale. The Cronbach's α reliability coefficient for this scale was .82, and that for the RSES was .79. The interscale correlations are shown in Appendix G11.

5. There was a change in mainframe computers (from CDC 6600 and CDC 7600 to AMDAHL) at the University of London Computing Centre while these data were being analysed. As a result, it was impossible to perform repeated measure MANOVAs as were used in the analysis of the previous experiment.

6. The main effects of Private ($F = 0.13$), Public ($F = 0.29$) and Identification ($F = 2.78$), as well as the Public x Private ($F = 0.004$) and Public x Private x Identification ($F = 0.09$) interactions were all non-significant ($p > .10$).

7. Bargh and Cohen (1976) conducted an experiment using five levels of evaluation to test this model, but the results were inconclusive.

CONCLUSIONS

The broad aim of this thesis is to demonstrate a relationship between focus of attention and intergroup behaviour. The present chapter assesses the extent to which this aim has been achieved. After summarising the progression of theory and research in this thesis unresolved methodological and theoretical issues are discussed. The focus is on the main findings rather than on minor discrepancies between results. Finally, implications for past and future research are drawn out.

REVIEW

Chapters 1, 2 and 3 present a critique and integration of self-awareness and social identity theories. Self-awareness 'theory' comprises three theories or approaches. Wicklund's (1975) approach is predominantly 'social'. It regards self-focused attention to be a consequence of situational factors. The important effect of self-attention is that it socialises individuals (it brings their behaviour into line with social and moral standards). Carver's (1979) approach is more psychological. Whatever the causes of self-focused attention, the effects are essentially due to cognitive processes (feedback loops, hierarchical structures, expectancies, etc.). Falling rather between stools is the personality approach adopted by Buss (1980) and partially incorporated by Scheier and Carver (1981). Although Buss's (1980) theoretical contribution has been largely ignored, the distinction between 'private' and 'public' self-attention has been retained and has been of central importance in Scheier and Carver's work. The distinction refers to focus on the covert and overt aspects of the self. Attention may be differentially directed to these two aspects both because of

situational cues and by dispositional tendencies. Since the behavioural standards associated with the two aspects of self may differ knowledge of to which aspect attention is directed is important when predicting behaviour.

While summarising these three separate approaches it is noted that they are all broadly compatible with one another. However, particular reservations exist concerning the empirical and conceptual adequacy of the private/public distinction; the extensive catalogue of 'effects' of self-attention contains a number of contradictions. Here the role of salience of standards is cited as being important in determining the effects of self-attention. Finally, all three approaches only consider social psychological processes associated with individuality. None addresses the issue of how self-attention bears on social identity and intergroup behaviour.

Social identity theory (Tajfel and Turner, 1979) has often been contrasted with 'individualistic' theories in social psychology. Its superiority is said to lie in the fact that it considers the impact of social groups to dwell in processes of self-categorisation and identification rather than interpersonal attraction, normative influence or realistic conflict. Minimal group experiments have helped to demonstrate how easily people can switch from acting in terms of their identity as individuals ('personal identity') to acting in terms of a social category ('social identity'). The relative salience of these identifications determines which has the greatest impact on behaviour (Turner, 1982). Intergroup discrimination is seen as emanating from the combination of a salient social identification with the need for a positive self-image (and hence positive distinctiveness for one's group). Together with these cognitive and motivational processes are the socio-historical forces which often go to make up the attributes, status and

power of any given group. This theory is therefore very broad, spanning the psychological and societal determinants of intergroup behaviour.

While noting that considerable energy has been directed to distinguishing the social identity approach from more individualistic interpretations of group and intergroup behaviour, there is a fair amount of common ground. Many instances of behaviour which appear to be of an intergroup nature can be described in terms of purely intragroup processes. It is also possible that the role constraints provided by group memberships mean that, even when social identity is salient, it does not lead to intergroup discrimination or even intergroup behaviour. Relationships may also exist between individuals and group members (e.g. a member of the public and a police officer). Reference group theory may help to account for behaviour in some of these instances. It is also suggested that equity, dissonance and reactance,in addition to the need for positive self-esteem (cf. Oakes and Turner, 1980),may determine the nature of intergroup behaviour. However, there is little clear evidence for the dominance of any single motive for intergroup behaviour. All of these considerations point to the conclusion that the impact of social identity on behaviour is not likely to be determined by any one process. More likely than not, individual psychological factors and external constraints all play a part. It is probable that overt behaviour reflects a pragmatic self-preserving motive. Behaviour may or may <u>not</u> betray to observers the existence of a salient social identification, depending on which strategy will best preserve or enhance that identification.

Chapter 3 contrasts the social identification and deindividuation models of group behaviour. Deindividuation theorists have claimed that being immersed in a group may draw attention away from the private aspects of self. Disinhibited group behaviour is a result of a lack of private self-awareness (e.g. Prentice-Dunn and Rogers, 1982). However,

the presence of public self-awareness is not said to diminish the impact of the group on the individual. Indeed, all the evidence suggests that public self-attention involves increased responsiveness to normative cues and conformity pressures. Specifically, reference group behaviour appears to be increased when people are publicly self-aware. Deindividuation and self-awareness theorists therefore believe that group membership leads to a loss of identity (lack of private self-awareness) and/or increased self-presentation and conformity (due to public self-awareness).

In contrast, the social identity approach (e.g. Reicher, 1982) claims that group membership may confer identity upon people, and that a process of referent informational (rather than normative) influence then comes into play. These two approaches each have something to offer. Private self-attention should increase the influence of group membership on behaviour if subjects are identified with the group. None of the deindividuation research explicitly creates group identities, whereas it seems that intergroup contexts are particularly likely to render social identity salient. In sum, it is the awareness of identity (not a loss of identity) rather than self-presentation which is thought to be most likely to lead to behaviour in terms of the group.

Owing to its critical importance, the private/public distinction comes under closer empirical and theoretical scrutiny in Chapter 4. The Self-Consciousness Scale (SCS; Fenigstein et al., 1975) was administered to a large number of subjects (8 different samples) from undergraduate and sixth form populations[1]. It is concluded that the SCS is an acceptable instrument for investigating differential effects of private and public self-consciousness. Furthermore, the two versions of the scale administered to children also seem to yield private and public factors, indicating that these factors are not necessarily

restricted to a 16-21 year old age group.

The initial attempt to investigate the impact of self-awareness on intergroup behaviour (Chapter 5) is by the experimental induction of public self-awareness (by large mirror, audience presence and other cues) in 11-year old school children[2]. However, no support is obtained for Carver and Humphries' (1981) view that group behaviour is essentially self-presentational in nature[3].

The next experiment (Chapter 6) uses a different approach. Within a minimal group paradigm attention is directed towards and away from group membership (relative to standard procedures). In addition, the impact of private self-consciousness is examined. Attention to group membership increases both the amount and consistency of ingroup bias, while ingroup pride is elevated among high privates. Subjects high in both public and private self-consciousness display most intergroup hostility[4]. Two main points emerge. Focus of attention clearly has some impact on intergroup behaviour. It is also possible that we should distinguish between 'salience' and 'attention' since it seems that even when group membership is salient the direction of attention may influence behaviour in different ways.

The pursuit of the self-consciousness approach is continued in the investigation of the impact of self-consciousness in more realistic intergroup contexts. Chapter 7 reports that highly private self-conscious subjects are prouder (again) and more biased in favour of their own school and are also more responsive to intergroup goal goal relations than lows[5]. From these data it is concluded that private self-consciousness heightens subjects' sense of social identification. Public self-consciousness stimulates conformity, fitting in and adherence to general social norms (e.g. of interpersonal attraction). When the two combine it leads subjects to concentrate on

presenting themselves positively as members of their ingroup. While the theoretical position of Chapter 3 is partly supported, the biases displayed by unself-conscious subjects also lend support to the deindividuation account of group behaviour.

Both self-definition and self-portrayal seem to play a part in intergroup behaviour. The MIXCOLLEGE study (Chapter 8) manipulates the audience for intergroup behaviour (Ingroup, Outgroup or Confidential). Identification with the ingroup, self-consciousness and self-esteem are also included as factors in the design[6].

The effects of Condition are restricted to just a few measures. However, the Outgroup audience condition provokes the greatest amount of bias - suggesting that salience can be influential in addition to self-presentation. Although high publics are more biased than lows there is no interaction with Condition, suggesting that whatever self-presentational standards are being adopted may have little to do with the audience.

Identification is associated with ingroup favouritism and with endorsement of ingroup attitudes (i.e. referent informational influence)[7]. Perhaps the most important finding is that identification and Condition interacted;highly identified subjects are more biased than lows with an ingroup audience, but not with an outgroup or no audience. In other words, identification is only accurately displayed towards the group with which it is concerned. These results reinforce the view that both self-definitional and self-presentational factors influence intergroup behaviour.

The BOYCOLLEGE experiment (Chapter 9) is a successful partial replication of the MIXCOLLEGE study. As well as demonstrating that the ratings of the two groups really are biased, significant effects of identification, and the Identification x Condition,are obtained once

again. Interestingly, in both studies identification is positively associated with ratings of both the ingroup and (less strongly) the outgroup, suggesting that identification creates bias mainly through its positive effects on regard for the ingroup. Finally, the kind of Private x Public interactions reported in Chapter 7 (SIMILARITY) are also obtained from the BOYCOLLEGE data[8].

The operationalisation of the audience factor in the MIXCOLLEGE and BOYCOLLEGE studies is further developed in Chapter 10. This marks a return to the laboratory and a re-examination of the effects of experimentally manipulated self-focus on intergroup behaviour. Unlike the first study reported in this thesis, manipulations of private (Mirror) and public (Video feedback) self-focus are clearly separated, and the presence of different types of audience is retained as a manipulation within the public self-focus (Video) conditions. A competitive task is also introduced, in order to justify the existence of the groups. Self-esteem, self-consciousness and identification with the group are also included as factors. Thus, three components of evaluative context (evaluators, definition of the situation, subject attributes) are considered[9].

The effects of Condition are minimal, although it appears that the three Video conditions differ; the ingroup audience provokes least and the confidential provokes most ingroup bias. Control, Mirror and Outgroup audience conditions fall between these extremes. It is felt that these results cannot be explained fully in terms of either self-presentation or self-concern. The most parsimonious account is in terms of the relative salience of and attention to personal and social identity. The continuum described in Chapter 3 (deindividuation → social identity → personal identity) is invoked[10]. It also seems that referent informational influence occurs since there are significant

overall shifts towards agreement with attitudes associated with the ingroup (relative to pre-test) but not with any other attitudes.

As in the SIMILARITY study, private self-consciousness makes subjects more attentive to task performance and more likely to link reward allocations to that performance. However, the most important interactions are those between self-consciousness and identification. Consistent with the theorising of Chapter 3,evaluative biases reflect amount of identification amongst high, but not low, private self-conscious subjects. Thus, both identification and awareness of that identification are necessary for social identity to produce ingroup bias. In contrast, only amongst low, but not high, public self-conscious subjects do evaluative biases reflect identification. This suggests even more strongly that group behaviour, and particularly that associated with social identity, is not simply a matter of self-portrayal. More interestingly, it appears that social identification may be concealed, thus preserving the individual's scope to allow any potential audience a glimpse of his or her social identity.

One other set of results which is of interest concerns the impact of self-esteem (measured prior to subjects' engaging in intergroup behaviour). In both the MIXCOLLEGE and the final experiment (Chapter 10) self-esteem is positively correlated with ingroup biases, particularly on trait ratings. However, in the final experiment self-esteem is also negatively correlated with evaluative bias. Perhaps low self-esteem prompts people to make specific and relatively minor evaluative gains, whereas people with higher self-esteem ignore moment-to-moment variations and, instead, make general assertions about their groups. It is suggested that this may be attributable to the greater self-confidence of those with higher self-esteem. The Self-esteem x Identification interaction in the final experiment shows that those with higher self-esteem

display bias more in line with their level of identification (reflecting assertive self-preservation) than do those with lower self-esteem. Overall, there is very little support for Turner's (1982) view that the basic motive behind intergroup behaviour is a need for (implying a previous lack of) self-esteem.

METHODOLOGICAL LIMITATIONS

In trying to obtain as complete a picture as possible a number of different designs, procedures and analyses have been adopted. Due to such variations it is sometimes difficult to compare results across experiments. For example, the measures of self-consciousness administered to children are not exactly the same as those administered to sixth formers and students. Therefore, where effects of self-consciousness differ it may be due either to developmental differences or to measurement differences. Confidence in the use of these measures is contingent on the unifying theoretical framework from which they are constructed. None of the age groups in the present research is excluded from self-attention theories. The process of self-focused attention probably is universal, but the content or aspects of self which are observed may well be determined by cultural and developmental variations. Although there may be developmental differences in self-attention there is little reason to think that these introduced contradictions into the results. (It may be worth extending the use of self-consciousness scales on children for use in the investigations of perspective taking and egocentrism in future research.)

The potential problem, then, arises from the possibility that the private and public dimensions which are measured may not accurately represent the way in which they are conceptualised. Private self-consciousness scales measure an amalgamation of several different aspects

of covert self-focus (see Chapter 4), and public self-consciousness scales may also measure conformity (see the scales for 11 year olds). If this is the case the question then becomes: 'To what do high publics conform?' This issue will be taken up below. In general, however, the use of these scales allows comparability between the present and previous self-consciousness research - a consideration which outweighs the reservations.

A number of other subject variables are used in the design of the present experiments. The most important of these is 'identification'. With the exception of the MIXCOLLEGE study, identification was measured only during the experiment. While its use as an independent variable in the BOYCOLLEGE and final experiments may be theoretically justified, it is curious that the only reliable effects of Condition, in the final experiment, are when the identification (and trait) items are used as dependent variables. In the other experiments, measures which tap identification (pride, belongingness, etc.) tend to be unaffected by Condition and to be more intertwined with self-consciousness and self-esteem. Perhaps the reason for the effect of Condition in the final experiment is precisely that such manipulations directly influence self-attention[11].

The Condition manipulations in all of the present experiments comply with those of the paradigms from which they were derived. The evidence that the first and last experiments did manipulate self-attention is good, and the audience manipulations in the final three experiments also seemed to be quite effective[12]. While it can be argued that the focus of attention manipulation in the minimal group experiments introduced a demand effect, the results are counter to those which have been predicted if demand characteristics are influential (see St. Claire and Turner, 1982).

On the other hand is the signal failure of manipulations and dispositions of self-attention to produce comparable effects. In the first experiments it is possible that because public and private manipulations are confounded they cancel out one another's effects. However, in the final experiment there is no clear general separation between Mirror (private) and Video (public) conditions. It is the presence and nature of the audience which turns out to be crucial in distinguishing between the Video conditions. In the light of these findings, the absence of significant Public x Condition interactions in the MIXCOLLEGE study is quite surprising. It is possible that highly public self-conscious subjects may refer to some generalised other for social standards, whereas situational manipulations of public self-awareness lead subjects to refer to the standards of some specific other.

The dependent variables used in the present research are also of interest. The reward allocation matrices which have been so prominent in previous research (see Turner, 1981a) are not seized upon where alternative means of expression were available by subjects in the present studies. One conclusion from this fact is that instrumentality may be only a minor consideration in subjects' intergroup behaviour. Trait ratings and indices of intergroup orientation (liking, perceived similarity[13], competitiveness, etc.) seem to provide the focus for most bias. However, an interesting pattern emerges in that where biases are elevated on these measures it is predominantly due to shifts in ratings of the ingroup and not derogation of the outgroup. This suggests that ingroup enhancement can sometimes be more important than intergroup differentiation[14].

The use of attitude items and of referenced attitude items is highly illuminating. The only effects of public self-consciousness cut across both types of statement. The 'reference group' behaviour in the

first experiments then became more explicable in terms of referent informational influence, since similarly presented items in the intergroup contexts of the final studies attract support only when attributed to ingroup sources, and especially if subjects are highly identified.

The method of eliciting intergroup attributions in the MIXCOLLEGE study is also fruitful. Differentiation is greater on group-related than on individual causes for academic success and failure[15]. Finally, the attempts to ascertain which social categories are most relevant by open-ended methods (first and final experiment pilot studies) are only moderately rewarding. Beyond the obvious difficulties of imposing a coding frame, we find that subjects do not readily suggest or refer to social categories at all. However, when specific outgroups are suggested (MIXCOLLEGE study) subjects have little difficulty in picking out the most relevant. One explanation for the problems of the more open-ended approach may be to do with the salience of social categorisations.

THEORETICAL PROSPECTS

'Salience' seems to hold the key to a great many predictions about behaviour in social psychology. Turner (1982) argues that when a social identification is salient it will lead to intergroup discrimination. Wicklund (1982) believes that the salience of different aspects of self determines what happens when attention becomes self-focused. However, it is unclear quite where salience resides. While one aspect of self may be salient to the subject (e.g. his or her attitudes, or emotions) quite another may be salient in the eyes of an observer (e.g. the subject's sex or skin colour). The subject may be aware of both these perspectives, and then it is hard to predict which will have the greatest impact on

behaviour or why. In the presence of an audience it is highly likely that people are aware of identity both as experienced and as portrayed. Therefore when asking when or whether social identity is salient we might also add 'and to whom?'.

The idea that more than one aspect of self might be salient in the same situation is also useful (see Chapters 2 and 3). In Chapter 5 the results of the minimal group experiments are discussed in terms of the distinguishable contributions of salience and focus of attention. Attention is considered to be a prerequisite for wilful action (cf. James, 1890); the conscious assessment of which rules or procedures to apply in behaviour. Under many conditions the rules, norms or schema are quite obvious and require little self-reflection. However, when alternative courses of action are possible and the rules are socially constructed or are ambiguous then self-focused attention is necessary. Given a salient social identification the individual must make sense of his or her behaviour in terms of the standards available.

It is also possible that, while the state of self-awareness does eliminate deindividuation, attention may scan both personal and social aspects of identity. Either or both aspects may become salient. However, the greater availability of personal identifications or self-schema (see Markus, 1977; Rogers, Rogers and Kuiper, 1979) may make the probability that personal, rather than social, identifications will provide behavioural standards higher as the time spent in self-focus increases. Therefore, even though social and personal identities (and intergroup and interpersonal behaviour) may be orthogonal rather than lying on a single continuum, excessive self-attention or self-concern can flick a switch from one to the other. The effects of increasing self-attention are probably to identify and then to personalise salient self-images.

A clear finding in this thesis is that many standards are available in intergroup contexts. For example, some subjects behave directly in line with their sense of group identification, others ignore or even reject the intergroup nature of the situation. It is not entirely clear why different standards are adopted, but it is likely that motivational factors are important. For example, highly private self-conscious subjects seem to value independence of identity from immediate social constraints, whereas highly public self-conscious subjects adhere to general social norms (equity, interpersonal attractiveness, etc.) and situational constraints, possibly because they seek social acceptance (cf. Fenigstein, 1979).

I should now like to reintroduce the notion of pragmatic self-preservation. It seems reasonable that the reason why individuals differ in the standards they adopt is that they have developed different ways of preserving their self-concepts. Individuals may develop habitual ways of approaching situations which are potentially threatening or rewarding to the self. However, as we have seen, variations in confidence and in subjective importance of an identity will influence the assertiveness or defensiveness with which it is preserved. Second, the presence and nature of an audience also influences what kind of strategy will be adopted. Third, processes of compartmentalisation and integration of self-images may also be important[16]. In order to ignore their social identifications in intergroup contexts people must have some higher order integrating principle such as 'treating all people as equals'. The opposite case - behaving differently towards the same individuals depending on whether social or personal identity is salient - requires compartmentalisation as well as another overriding principle such as 'being true to my group'. This characterisation of the way that identity influences behaviour goes well beyond either the salience

formulation offered by Turner (1982) or the differential self-awareness formulation proposed by Scheier and Carver (1981), but owes much to Tajfel (1969, 1974) and to Simmel (1955), both of whom stressed the role of intergroup behaviour as a provider of meaning and a preserver of the structure of identity.

The characterisation of social identity theory as being in opposition to individualistic social psychology (Turner and Giles, 1981) should be abandoned. While social identity theory can encompass socio-historical factors a substantial bulk of research under its banner has dwelt at the individual and intrapsychic levels. Turner's (1982) approach is essentially cognitive; the intergroup behaviour described by him could be produced without real human groups or social processes existing. His approach is no more social than is Festinger's (1957) dissonance theory or Schank and Abelson's (1977) script theory. Where Turner helps is in highlighting the process whereby categories become assigned to the self. His approach does not add any 'social' input to the explanation of why people should identify with such categories or why they might be motivated to discriminate in favour of them. Turner's self-categorisation model does describe processes which mean that behaviour of the group is directly reducible to the psychology of the individual (cf. Turner and Giles, 1981). The social identity approach helps to account for intergroup behaviour, and does extend our understanding of how groups are brought to life in individuals. However, it is Tajfel's (see 1979) contribution which expands its scope to become social[17]. My own view is that the problematic (individual versus social psychology) is in need of revision. The debate assumes that the individual and society are divisible. However, it is equally reasonable to assume that they are indivisible, are part of the same process, and that the notion that one may be discerned from the other

is misguided. In this latter conception, the very motives, needs, cognitive capacities and reactions which are called 'individual' are seen to exist as a social construction. Theories which have been branded 'individualistic' (e.g. equity theory) must be social in so far as they propose uniformity in the principles of social behaviour. They are 'asocial' merely in that the social and historical construction (and change) of such principles are not explicitly acknowledged (see Semin and Manstead, 1979, for thoughts along these lines). What these theories do is to explain social behaviour in a way which allows the phenomenology of individuality. Social psychology is concerned with the way that people conceive of and behave in their social world. Social identity theory embraces the processes by which the social world is represented psychologically, but is far from complete in its depiction of the way that individuals navigate around that world. Furthermore, it is untrue that all other social psychological theories have neglected the social construction of reality. Reference group theory, relative deprivation theory and script theory (for example) each embody the prerequisite assumption that social forms and structures must be psychologically represented. If we consider social psychological theorists as artists, it is not that social identity theorists are superior to other theorists,but more that they are often painting on a different part of the canvas.

Carver and Scheier's (1981a) theory of self-regulation seems to be mistaken in its characterisation of the nature of 'private' and 'public' aspects of self. They have accepted the view that 'public' should be equated with 'social' and with self-portrayal, whereas 'private' should be equated with 'personal' and self-definition. They are further misguided in depicting group behaviour as requiring a loss of identity or self-definition, and as entailing self-presentational conformity.

When self-definition is a social categorisation it seems that 'private' and 'social' are wholly compatible. Future research might benefit by considering deindividuation, individuation and social identification together and by trying to find out when self-focus will lead to ingroup cohesion and when it will lead to atomisation into individuals. It would be useful to conduct an experiment in which deindividuation, social identification and self-focused attention were orthogonally manipulated in order to see how these factors combine or cancel one another out. In addition, experiments in which interactions are arranged between individual group members and between pairs or trios of group members might furnish more information about how public self-consciousness and self-presentation operate in intergroup contexts. At present it appears that public self-focus can lead either to moderation or to elevation of ingroup favouritism. This may reflect the salience of personal and social identification or may be due to more general pragmatic self-preserving motives.

A second direction would be to distinguish between different types of group salience. A social categorisation may be salient because it has been imposed by an external agent (Cartwright and Zander, 1968) (for example, when others mistake one's identity) or because an identification with a social category is under threat or challenge. Salience of an externally imposed category may produce different behaviour from salience of an identification. This possibility could be explored by introducing people who are involved with one system of categorisation (e.g. 'this experiment is about racial prejudice') to interactants or group members who are known to be concerned about another system (e.g. the male subject is informed that the other group is composed largely of feminists). Under these kinds of condition it would be possible to disentangle self-definitional

(self-categorisation) from self-presentational (self as categorised by others) forces in intergroup contexts.

Third, it may be worth while to devise experiments which clearly distinguish between salience and focus of attention (in intergroup or other contexts) since it is important to understand more fully how salient identities are reflected in behaviour. This requires that greater control be exerted over the salience of various self-aspects while focus of attention is being manipulated. Perhaps the crucial difficulty here will be to arrive at a satisfactory definition of 'salience'.

Fourth, the impact of audiences has always been a central problem for social psychologists (Allport, 1968; Zajonc, 1965). In view of the possibility that different audiences may suggest different standards for behaviour it may be worth finding out what people believe those standards to be. Here the categorisations which subjects believe <u>are</u> salient to the audience may be important in specifying standards. The approach taken in Chapter 6 could be developed, and specific standards could be made explicit in intergroup contexts, thus allowing closer scrutiny of the impact of self-focus on adherence to those standards.

Fifth, I believe that the way that salience, focus of attention, standards and real constraints of contexts influence the expression of identity in intergroup and other contexts may be described usefully in terms of concepts such as self-preservation. To a limited extent it may be possible to articulate formal hypotheses about how and when identity will be concealed or revealed, and to conduct research to test such hypotheses. Of course, it may be difficult to set up experiments in which different strategies can be unambiguously ranked according to their self-preserving potential. However, the important point is that behaviour should be regarded as resulting from a person's

perception not just of his or her own motives or intentions but also of how such behaviour will affect others' perceptions of him or her.

As a general conclusion, the most important contribution of this thesis is to demonstrate the way that two major social psychological theories can be usefully integrated to provide a more complete account of social behaviour[18]. These two theories represent possibly the most social and the most individual extremes of social psychology. Yet, as is demonstrated here, neither can explain the phenomena on which they focus without incorporating processes postulated by the other.

For self-awareness theory the threadbare and ill thought out explanation of group behaviour in terms of identity loss (see also Mullen, 1983) can now be replaced by a fuller view in which the group confers identity. In this new formulation, the self-aware individual can be seen not just as a combatant against social pressures,but also as a dedicated representative of society through social identification with groups[19]. In no sense may we now treat group behaviour as always reflecting a loss of individual integrity (cf. Le Bon, 1893); a position which has been prominent in recent theories (e.g. Milgram, 1974; Zimbardo, 1969).

For social identity theory the issues are different. The reliance on the concept of salience casts individuals as being very much at the mercy of cognitive processes or environmental stimuli which are beyond their control. By introducing self-awareness we can explain, to some degree, individual variations in intergroup behaviour. We can also construe such behaviour as being wilful; a reflection of (for example) identification, pride and commitment in the awareness of individual actors. Social categories may provide a self-definition but they do not always contain directions as to how to behave. In addressing the question of how individuals come to act in terms of groups,

we must explain not only how they come to regard themselves as group members but also how they give meaning to their identity through action. The self-aware search for standards appears to be the process which performs this function.

NOTES

1. While the Social Anxiety subscale was most reliable and had the most coherent factor structure it was also highly correlated with neuroticism, extroversion and self-esteem. The Private and Public subscales seemed to have reasonably coherent reliability and factor structures (the Private scale less so), and were only moderately correlated with one another ($r \approx .3$).

2. Two possibilities were explored. First, public self-awareness would lead to increased ingroup bias; and, second, public self-awareness would lead to greater rejection of statements made by the opposite sex group (a negative reference group). However, in the first case self-awareness actually decreased bias among male subjects, and in the second self-awareness only attenuated rejection of negative reference group statements.

3. The finding that females, but not males,displayed intersex bias was both surprising and interesting. In a later study (MIXCOLLEGE) males were more biased than females against an all-male outgroup school. Both sets of results fit in with a developmental model of gender identification couched in terms of social identification (Abrams and Condor, 1984).

4. This difference is most reliable within the Enhanced Condition. (However, there are also significant main effects in which high Privates express greater attraction to the outgroup than do lows.) High Publics express enthusiasm for learning numbers directly in line with the condition in which they find themselves (i.e. most in the Distracted Condition), providing some support for the idea that high Publics are more likely to engage in audience-pleasing self-portrayal than are lows. Four significant Private x Public interactions all showed that subjects who were high on both dimensions expressed greatest intergroup hostility. Curiously, the effects of self-consciousness did not embrace reward allocations.

5. When competing against a similar attitude outgroup high Privates were more biased (in reward allocations) than were lows. However, when competing against similar status outgroups this pattern was reversed. High Public self-consciousness seemed to sensitise subjects to outgroup status (performance on the test increased with outgroup status) but not to goal relations (highs were equally positive about working with either competing or co-operating outgroups). Subjects who were high on both dimensions were more biased than those high on only one - replicating the result from the minimal group experiment. (However, subjects who were low on both were also more biased than those high on only one.) Also of theoretical interest was the finding that those who were high only in Private self-consciousness were most biased against similar attitude or status outgroups, while those high only in Public self-consciousness were least biased against similar outgroups.

6. Several alternative and rival hypotheses were put forward. Self-presentational demands could have led to greatest bias in the

presence of an ingroup audience. The nature of the audience could also have exerted normative influence on the acceptance of statements made by members of the ingroup and outgroup (particularly among highly Public self-conscious subjects). If these hypotheses were confirmed Carver and Humphries' (1981) position would have been supported. On the other hand, hypotheses derived from social identity theory predicted that ingroup bias would increase with identification, as should endorsement of ingroup attitudes (via referent informational influence), particularly among subjects who were high in Private self-consciousness. Any effects of Condition would be due to variations in salience of social identity - the highest predicted to be in the presence of an outgroup audience.

7. Neither Condition nor Public self-consciousness had any impact on endorsement of ingroup and outgroup attitudes. There were no important main effects of Private self-consciousness.

8. High/high and low/low subjects were more biased than were those high on only one dimension. Neverthelsss, Public, but not Private, self-consciousness was positively correlated with ingroup bias - matching the main effect of Public obtained in the MIXCOLLEGE study.

9. The deindividuation hypothesis would predict that Control subjects would display more bias or hostility against the outgroup than would subjects in the four self-aware conditions. The social identification approach might predict the opposite, on the basis that all but the Control subjects would be aware of their social identity. However, differential focus on Private and Public aspects of self (induced by different manipulations) could make different standards dominant, and hence could lead to different effects. Other hypotheses were broadly in line with those for the two previous experiments.

10. The only significant main effects of self-consciousness tended to support the distinction between Public and Private. High Publics moderated their attitude positions more than lows (playing safe). High Privates were more attitudinally self-consistent than were lows. However, there was no evidence for reference group normative influence since neither Condition nor Public self-consciousness influenced endorsement of ingroup and outgroup attitudes, although identification had no effect on these either.

11. In retrospect, it is a shame that no measures of identification were included in the first experiments (Chapter 5), since the self-awareness manipulations may have influenced identification and thus helped in the explanation of the final experiment.

12. The Condition manipulations in the SIMILARITY experiment were clearly effective (see Brown and Abrams, 1982).

13. In both the MIXCOLLEGE and BOYCOLLEGE studies analyses were performed to see what relationship existed between the perceived similarity of members within each of the groups (homogeneity) and similarity (1 = very similar, 9 = very different) between groups. In both cases multiple regressions indicated that

perceived intragroup homogeneity was not predictive of perceived intergroup similarity. However, an index of the absolute difference in perceived homogeneity of the ingroup and outgroup was reliably predictive of perceived intergroup similarity. In the MIXCOLLEGE study: Similarity = 4.38 + 0.32 x differential homogeneity ($F = 11.74$, $r^2 = .09$, $p < .001$). In the BOYCOLLEGE experiment: Similarity = 5.38 + 0.31 x differential homogeneity ($F = 7.69$, $r^2 = .15$, $p < .01$). Therefore, it seems that one aspect of judgements of intergroup similarity is the extent to which both groups are perceived as groups, or as individuals. The correlations between perceived intergroup similarity and differential homogeneity were $r = .3$ and $r = .39$. If both groups are perceived as being composed of homogeneous individuals, or if both are perceived as being heterogeneous, then the two groups are perceived to be similar. If one is regarded as heterogeneous and the other as homogeneous then the two are perceived to be different. This rather contradicts Turner's (1981, 1982) account of self-stereotyping and intergroup differentiation, as well as Doise's (1978) view that intra-category similarities are accentuated at the same time as inter-category differences. These data fit in with Park and Rothbart's (1982) finding that in intergroup contexts one form of intergroup differentiation results from the fact that outgroup but not ingroup members become stereotyped (i.e. are perceived as being homogeneous). In other words, it seems that differentiation between groups can occur both through descriptions of intergroup dissimilarity and of differences in intragroup similarity.

14. This may be especially true when the ingroup's prior position (rather than the outgroup's current position) can be taken as a point of reference.

15. I think that too many dependent measures were presented in these later experiments. One reason for the different patterns of results on different groups of dependent variables may be that, having differentiated on one set, subjects searched for alternative strategies to use on others. Also, as the number of dependent measures increases, so does the risk of a Type II error. While the use of MANOVA does reduce this risk, it is still present. It may be that some of the less easily interpretable results are in fact due to random error.

16. I wish to thank Professor John R. Edwards for discussing with me the use of 'compartmentalisation' as an aid to characterising the psychology of intergroup behaviour.

17. Taylor and Brown (1979) have pointed out that the 'basic building blocks' of social identity theory are individualistic, 'at least at the level of theorising' (p. 176). They suggest that the 'social' approach requires that the execution of research encompasses the social context as both independent and dependent variables. Tajfel (1979) replied that Taylor and Brown had over-emphasised one strand of the theory - the social categorisation, social identification, social comparison sequence. Tajfel states that these are necessary, but not sufficient conditions for intergroup behaviour which do indeed 'ultimately consist of individual processes' (p. 184). This statement exposes a divide

between Tajfel's and Turner's assessment of social identity processes. Turner's self-categorisation approach is quite clearly individualistic in the sense that Tajfel (1979) defines such approaches: 'An "individualistic" theory contains the assumption that individuals live and behave in a homogeneous social medium' (p. 187).

For Tajfel, the focus of the theory (and what renders it 'social') is 'not the individual,but the explanation of uniformities of intergroup behaviour ... socially shared patterns of individual behaviour' (p. 187). It is the socially shared construction of reality (Berger and Luckman, 1967), or representation (Farr and Moscovici, 1984) and social belief structures (Tajfel and Turner, 1979), which determine the meaning and behaviour attached to social categorisations. While Taylor and Brown (1979) are judged to rely on 'just one more independent variable: an increase in the salience of a social categorisation' (Tajfel, 1979, p. 188), the key problems for Tajfel are: 'Why, when and how is a social categorisation salient or not salient? What kind of shared constructions of social reality, mediated through social categorisations, lead to a social climate in which large masses of people feel that they are in conflict with other large masses?' (p. 188).

At the very least, it appears that social identity theory has both individualistic and social components. While Tajfel's and Turner's contributions are characterised here as being relatively social and individualistic, respectively, it must be acknowledged that even Tajfel (1979) posits that people 'need guidelines ... and a coherent system of orientation in their social environment' (p. 185). This need presumably resides within individuals. Yet this does not make the theory reductionist. Tajfel (1979) puts his finger on the key to this matter when using the necessary/sufficient distinction. We may accept that certain psychological processes or motives must exist prior to intergroup behaviour. The same psychological processes may be channelled to behaviour in many directions. The specific direction chosen is impossible to predict without an understanding of the social context and social psychological constraints within which individuals find themselves.

18. If this thesis has constructed a more complete framework for our understanding of social self-regulation it must also be stated that the more sociological parameters remain relatively unexplored. We have asked how the individual lives within the group but have not approached issues of how groups emerge, thrive and decay within a socio-historical context.

19. Seen in this light, those who advocate the use of self-focusing stimuli in shops, or as a means of inducing greater 'morality' and 'individual freedom' in schools (e.g. McCormick, 1979), are quite misguided. Awareness of social identity as a member of a non-conforming group can produce quite opposite effects!

Appendix A

APPENDIX A1

Fenigstein, Scheier and Buss' (1975) Self-Consciousness Scale

We are conducting some research into the ways that people think about themselves. Some of these are indicated in the statements below. Next to each statement, circle the appropriate number to indicate how characteristic of yourself it is. If a description is extremely uncharacteristic circle 1, if it is quite uncharacteristic circle 2, if you are uncertain circle 3, if it is quite characteristic circle 4 and if it is extremely characteristic circle 5. Work through all of the statements quickly, and please remember not to miss any of them out. Thank you for your help with this research.

	extremely uncharacteristic				extremely characteristic
I'm always trying to understand myself	1	2	3	4	5
I'm concerned about my style of doing things	1	2	3	4	5
Generally, I'm not very aware of myself	1	2	3	4	5
It takes me time to overcome my shyness in new situations	1	2	3	4	5
I reflect about myself a lot	1	2	3	4	5
I'm concerned about the way I present myself	1	2	3	4	5
I'm often the subject of my own fantasies	1	2	3	4	5
I have trouble working when someone is watching me	1	2	3	4	5
I never scrutinize myself	1	2	3	4	5
I get embarrassed very easily	1	2	3	4	5
I'm self-conscious about the way I look	1	2	3	4	5
I don't find it hard to talk to strangers	1	2	3	4	5
I'm generally attentive to my inner feelings	1	2	3	4	5
I usually worry about making a good impression	1	2	3	4	5
I'm constantly examining my motives	1	2	3	4	5
I feel anxious when I speak in front of a group	1	2	3	4	5
One of the last things I do before I leave the house is to look in the mirror	1	2	3	4	5
I sometimes have the feeling that I'm watching myself	1	2	3	4	5
I'm usually concerned about what other people think of me	1	2	3	4	5
I'm alert to changes in my mood	1	2	3	4	5
I'm usually aware of my appearance	1	2	3	4	5
I'm aware of the way my mind works when I work through a problem	1	2	3	4	5
Large groups make me nervous	1	2	3	4	5

NAME..... AGE..... SEX .....

Your answers on this questionnaire will be kept completely confidential

Appendix A2
'Minimal Group' Self-Consciousness Scale for 11 year olds

NAME:_____

CLASS:_____

I don't change my mind about things — Strongly agree 1 2 3 4 5 6 7 Strong disagr

I think alot about the way I look — Strongly agree 1 2 3 4 5 6 7 Strong disagr

It is important what other people think of me — Strongly agree 1 2 3 4 5 6 7 Strong disagr

I always say what I think — Strongly agree 1 2 3 4 5 6 7 Strong disagr

I notice my inner feelings alot — Strongly agree 1 2 3 4 5 6 7 Strong disagr

I like to be the same as my friends — Strongly agree 1 2 3 4 5 6 7 Strong disagr

It is always best to mix with the crowd — Strongly agree 1 2 3 4 5 6 7 Strong disagr

I am always sure about what I think — Strongly agree 1 2 3 4 5 6 7 Strong disagr

Appendix A2 (cont'd.)

It is better to agree with people than to argue about what you think — Strongly agree 1 2 3 4 5 6 7 Strongly disagree

People can't talk me into doing things that I don't want to — Strongly agree 1 2 3 4 5 6 7 Strongly disagree

I can always tell when my mood is changing — Strongly agree 1 2 3 4 5 6 7 Strongly disagree

I compare myself with other people alot — Strongly agree 1 2 3 4 5 6 7 Strongly disagree

Thank you very much for filling in this question sheet.

Appendix A3

'Similarity' Self-Consciousness Scale for 13 year olds

QUESTIONNAIRE B

Please now answer these questions about yourself. Remember, your answers are strictly confidential. No one else will know what you have written, so try to answer as honestly as you can. We would like you to show how much you agree that the statements below apply to you by putting a mark on the line next to each one.

1) I'm always trying to understand myself.
Strongly agree _____ Strongly disagree

2) I think about myself alot.
Strongly agree _____ Strongly disagree

3) I'm quite a similar sort of person to my friends.
Strongly agree _____ Strongly disagree

4) I'm concerned about the way I appear to others.
Strongly agree _____ Strongly disagree

5) When I'm with a group of friends I often find myself thinking the same way as them.
Strongly agree _____ Strongly disagree

6) I'm self-conscious about the way I look.
Strongly agree _____ Strongly disagree

7) I'm generally aware of my inner feelings.
Strongly agree _____ Strongly disagree

8) When I'm in a team game I think more about how my team is doing than about how I'm doing myself.
Strongly agree _____ Strongly disagree

9) I usually worry about making a good impression .
Strongly agree _____ Strongly disagree

10) When I'm in school uniform I feel very aware of being a member of my school.
Strongly agree _____ Strongly disagree

11) I'm alert to changes in my mood.
Strongly agree _____ Strongly disagree

12) I'm concerned what other people think of me.
Strongly agree _____ Strongly disagree

13) I prefer to be loyal to my own group than than to try to cooperate with other groups.
Strongly agree _____ Strongly disagree

14) I feel more comfortable working alone than I do if I'm working with a group of others.
Strongly agree _____ Strongly disagree

15) I'm aware of the way my mind works when I'm trying to solve a problem.
Strongly agree _____ Strongly disagree

Thank you for your help. Can you please now make sure that you have filled in all the answers to both of the questionnaires and that you have filled in your name , sex and other information asked for on the front of the first questionnaire.

Appendix A4

Confirmatory factor analyses (into 3 factors) of responses to the SCS from five samples of undergraduates

Sample: UKC 1983

ROTATION		VARIMAX		OBLIQUE (DELTA = 0.0)		
FACTOR	1	2	3	1	2	3
Eigenvalue	3.13	2.19	1.85			
Variance %	43.50	30.60	25.90			
Item number and scale						
(PRIVATE SC)						
1			.78			.78
(-)3		.39			.41	
5			.62			.62
7		.34			.34	
(-)9			.43			.43
13		.46			.47	
15			.63			.63
18			.31			.32
20		.42			.41	
22						
(PUBLIC SC)						
2		.45			.45	
6		.55			.56	
11	.35			.33		
14		.54			.53	
17						
19	.30	.57			.55	
21		.52			.53	
(SOCIAL ANXIETY)						
4	.72			.73		
8	.38			.36		
10	.54			.54		
(-)12	.66			.67		
16	.70			.69		
23	.69			.69		

Appendix A4

Confirmatory factor analyses (into 3 factors) of responses to the SCS from five samples of undergraduates

Sample: UKC SURVEY 1983

ROTATION		VARIMAX		OBLIQUE (DELTA = 0.0)		
FACTOR	1	2	3	1	2	3
Eigenvalue	3.20	2.27	1.64			
Variance %	45.00	31.90	23.10			
Item number and scale						
(PRIVATE SC)						
1		.66				.67
(-)3		.31				.32
5		.52				.51
7						
(-)9		.59				.59
13		.49				.49
15		.50				.47
18		.40				.39
20		.42				.42
22		.44				.46
(PUBLIC SC)						
2	.57				.55	
6	.66				.65	
11	.68				.69	
14	.56				.55	
17	.34				.34	
19	.59				.57	
21	.57		-.35		.59	-.34
(SOCIAL ANXIETY)						
4			.73			.73
8			.34			.34
10			.67			.67
(-)12			.45			.44
16			.60			.61
23			.46			.46

Appendix A4

Confirmatory factor analyses (into 3 factors) of responses to the SCS from five samples of undergraduates

Sample: UKC 1981

ROTATION		VARIMAX		OBLIQUE (DELTA = 0.0)		
FACTOR	1	2	3	1	2	3
Eigenvalue	4.23	2.08	1.94			
Variance %	51.20	25.20	23.50			
Item number and scale						
(PRIVATE SC)						
1		.64			.63	
(-)3						
5		.76			.79	
7		.52			.50	
(-)9		.35			.33	
13		.44			.45	
15		.38			.38	
18		.50			.51	
20		.40			.38	
22		.54			.55	
(PUBLIC SC)						
2	.64			.64		
6	.74			.75		
11	.75			.77		
14	.65			.65		
17	.44		.33	.43		
19	.56			.56		
21	.74			.76		
(SOCIAL ANXIETY)						
4			.63			.63
8						
10			.52			.51
(-)12			.55			.57
16			.54			.54
23		.32	.65		.31	.64

Appendix A4

Confirmatory factor analyses (into 3 factors) of responses to the SCS from five samples of undergraduates

Sample: UKC 1980

ROTATION		VARIMAX		OBLIQUE (DELTA = 0.0)		
FACTOR	1	2	3	1	2	3
Eigenvalue	4.17	2.64	1.24			
Variance %	51.80	32.80	15.40			
Item number and scale						
(PRIVATE SC)						
1	.69			.72		
(-)3	.43			.36		
5	.77	.31		.73		
7	.44			.39		
(-)9	.52			.56		
13	.43		-.37		-.37	
15	.57			.54		
18	.44			.49		
20	.53			.54		
22	.33					
(PUBLIC SC)						
2	.31	.42				.40
6		.73				.77
11		.48				.49
14		.78				.81
17		.36				.35
19		.50				.52
21		.32				.30
(SOCIAL ANXIETY)						
4			.58		.59	
8			.33		.33	
10			.70		.70	
(-)12			.53		.53	
16			.47		.46	
23			.64		.64	

Appendix A4

Confirmatory factor analyses (into 3 factors) of responses to the SCS from five samples of undergraduates

Sample: MANCH 1980

ROTATION		VARIMAX		OBLIQUE (DELTA = 0.0)		
FACTOR	1	2	3	1	2	3
Eigenvalue	3.83	2.59	1.63			
Variance %	47.50	32.20	20.30			
Item number and scale						
(PRIVATE SC)						
1	.84				.85	
(-)3	.42				.44	
5	.67				.65	
7						
(-)9	.55				.56	
13	.48				.48	
15	.47				.45	
18						
20	.45				.44	
22	.33				.35	
(PUBLIC SC)						
2	.51				.50	
6	.40	.48		.45	.40	
11		.63	.31	.63		
14		.71		.71		
17		.63		.63		
19		.57		.56		
21		.57		.58		
(SOCIAL ANXIETY)						
4			.46			.46
8			.61			.61
10			.60			.58
(-)12			.65			.66
16			.49			.48
23			.59			.59

Appendix A5

Confirmatory factor analyses (into 3 factors) of responses to the SCS from two samples of sixth form pupils

Sample: BOYCOLLEGE

ROTATION	VARIMAX			OBLIQUE (DELTA = 0.0)		
FACTOR	1	2	3	1	2	3
Eigenvalue	3.73	2.44	1.50			
Variance %	48.60	31.80	19.60			
Item number and scale						
(PRIVATE SC)						
1			.40			.39
(-)3			-.48			-.48
5						
7	.47			.46		
(-)9			.42			.40
13	.61			.50		
15			.52			.52
18			.53			.54
20						
22		-.38	.40		-.38	.41
(PUBLIC SC)						
2	.36			.37		
6	.79			.79		
11	.61			.62		
14	.70			.71		
17	.35			.34		
19	.81			.81		
21	.58	-.45		.59	-.45	
(SOCIAL ANXIETY)						
4		.57			.57	
8		.44			.44	
10	.34	.64		.34	.64	
(-)12		.40			.40	
16		.68			.68	
23		.56			.56	

Appendix A5

Confirmatory factor analyses (into 3 factors) of responses to the SCS from two samples of sixth form pupils

Sample: MIXCOLLEGE A

ROTATION	VARIMAX			OBLIQUE (DELTA = 0.0)		
FACTOR	1	2	3	1	2	3
Eigenvalue	3.35	2.09	1.00			
Variance %	52.30	32.60	15.10			
Item number and scale						
(PRIVATE SC)						
1			.55			.59
(-)3			.34			.33
5						
7						
(-)9						
13	.31					
15			.57			.55
18			.30			
20			.37			.35
22						
(PUBLIC SC)						
2	.38			.38		
6	.71			.73		
11	.62			.59		
14	.67			.68		
17						
19	.70			.71		
21	.61			.63		
(SOCIAL ANXIETY)						
4		.84			.84	
8		.42			.42	
10		.64			.63	
(-)12		.49			.50	
16		.57			.57	
23		.36			.37	

Appendix A5

Confirmatory factor analyses (into 3 factors) of responses to the SCS from two samples of sixth form pupils

Sample: MIXCOLLEGE B (re-test)

ROTATION	VARIMAX			OBLIQUE (DELTA = 0.0)		
FACTOR	1	2	3	1	2	3
Eigenvalue	4.34	2.42	1.27			
Variance %	54.00	30.20	15.80			
Item number and scale						
(PRIVATE SC)						
1			.75			.80
(-)3	.37			.34		
5			.55			.59
7						
(-)9	.35		.49			.44
13			.38			.36
15			.53			.56
18			.49			.50
20			.40			.39
22						.25
(PUBLIC SC)						
2	.37		.37	.31		.31
6	.71			.72		
11	.72			.75		
14	.67			.73		
17	.40			.41		
19	.59			.60		
21	.64			.64		
(SOCIAL ANXIETY)						
4		.82			.81	
8		.38			.36	
10		.67			.66	
(-)12		.55			.55	
16		.56			.56	
23		.51			.50	

Appendix A6

Exploratory factor analyses (into n factors) of responses to the SCS from five samples of undergraduates

Sample: UKC SURVEY 1983

ROTATION	VARIMAX							OBLIQUE (DELTA = 0.0)						
FACTOR	1	2	3	4	5	6	7	1	2	3	4	5	6	7
Eigenvalue	3.84	2.88	2.30	1.40	1.31	1.08	1.06							
Variance %	16.7	12.5	10.0	6.1	5.7	4.7	4.6							
Item number and scale														
(PRIVATE SC)														
1				.31	.43	.38				-.35				-.34
(-)3					.57									.60
5				.59								.57		
7				.34								.35		
(-)9					.50									
13						.35	.42			.34	-.41			.45
15						.77				-.82				
18				.56								.56		
20							.77				.76			
22					.34									
(PUBLIC SC)														
2		.50							.39					
6		.54	.38						.42					.34
11		.36	.61											
14		.77							.79					
17				.34										.33
19		.57							.51					
21				.79										.85
(SOCIAL ANXIETY)														
4	.77								.79					
8	.41								.44					
10	.68								.68					
(-)12	.43								.42					
16	.58								.55					
23	.44								.39					

Appendix A6

Exploratory factor analyses (into n factors) of responses to the SCS from five samples of undergraduates

Sample: UKC 1983

ROTATION	VARIMAX								OBLIQUE (DELTA = 0.0)							
FACTOR	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
Eigenvalue	3.74	2.82	2.45	2.02	1.32	1.24	1.14	1.11								
Variance %	16.3	12.3	10.7	8.8	5.7	5.4	5.0	4.8								
Item number and scale																
(PRIVATE SC)																
1		.85									.88					
(-)3			.59									-.58				
5		.58									.52					
7				.49												-.49
(-)9		.42									.41					
13			.62									-.58				
15						.39				.45	.46					
18		.40									.41					-.30
20			.84									-.89				
22							.46							.46		
(PUBLIC SC)																
2						.75				.79						
6				.42		.48				.48						
11	.31			.48												-.39
14				.61						.30						-.56
17							.95						.99			
19				.60			.30			.30						-.50
21												-.36	.33			
(SOCIAL ANXIETY)																
4	.60				.33					.55						
8					.60										-.67	
10					.67		.42							.55	-.52	
(-)12	.82									.85						
16	.57				.48					.47					-.39	
23	.77									.78						

Appendix A6

Exploratory factor analyses (into n factors) of responses to the SCS from five samples of undergraduates

Sample: UKC 1980

ROTATION	VARIMAX								OBLIQUE (DELTA = 0.0)							
FACTOR	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
Eigenvalue	4.76	3.24	1.83	1.64	1.25	1.20	1.03	1.00								
Variance %	20.7	14.1	7.9	7.1	5.5	5.2	4.5	4.4								
Item number and scale																
(PRIVATE SC)																
1		.79								.78						
(-)3			.35		.67								.68			
5		.62	.31		.32					.54						
7		.33				.64								.64		
(-)9		.65						.49		.63						-.43
13					.57			-.49					.54			-.54
15		.71								.70						
18		.31					.61		.35						.57	
20					.76								.77			
22							.75								.81	
(PUBLIC SC)																
2		.38		.77						.32		.76				
6			.78								.77					
11			.36			.32		.65			.32			.32		.65
14			.64	.47							.63	.40				
17			.46			.62					.40			.62		
19				.78								.79				
21			.60		.32						.56					
(SOCIAL ANXIETY)																
4	.64								.59							
8	.39					.59			.37					.60		
10	.71								.62							.32
(-)12	.47					.41	.49		.32	.33				.40	.50	
16	.65							-.39	.70							-.36
23	.81								.84							

Appendix A6

Exploratory factor analyses (into n factors) of responses to the SCS from five samples of undergraduates

Sample: UKC 1981

ROTATION	VARIMAX							OBLIQUE (DELTA = 0.0)						
FACTOR	1	2	3	4	5	6	7	1	2	3	4	5	6	
Eigenvalue	4.80	2.71	2.49	1.50	1.30	1.21	1.00							
Variance %	10.9	11.8	10.9	6.5	5.7	5.3	4.2							
Item number and scale														
(PRIVATE SC)														
1			.26	.77						.74				
(-)3							-.80					-.67		
5			.48	.62						.72				
7	.39		.34	.35		.38				.45				
(-)9	.41			.43			-.35			.62		-.36		
13			.64				-.25				.67			
15				.79						.61		.44	.37	
18			.70								.54		-.44	
20			.53		.34						.56			
22		-.37	.57								.65			
(PUBLIC SC)														
2	.60				.33				.64					
6	.60				.52				.71					
11	.82								.85					
14	.42				.65				.52					.51
17	.64	.36							.61	.36				
19	.32				.72				.48					.46
21	.81								.85					
(SOCIAL ANXIETY)														
4		.73								.70				
8						.76								.62
10		.54					-.31			.47				
(-)12		.71								.74				
16										.31		-.67		
23		.66	.56			.67	-.37			.73		.45		

Appendix A6

Exploratory factor analyses (into n factors) of responses to the SCS from five samples of undergraduates

Sample: MANCH 1980

ROTATION	VARIMAX							OBLIQUE (DELTA = 0.0)						
FACTOR	1	2	3	4	5	6	7	1	2	3	4	5	6	7
Eigenvalue	4.41	3.20	2.27	1.78	1.46	1.13	1.03							
Variance %	19.2	13.9	9.9	7.7	6.3	4.9	4.5							
Item number and scale														
(PRIVATE SC)														
1			.84				.31			.79				
(-)3			.51	.33			.32			.45			.36	-.31
5			.76			.34				.78		.34		
7				.81									.82	
(-)9			.59							.52				
13					.83						.84			
15			.59	.45						.61			.38	
18				.60			-.35						.54	-.39
20					.78						.79			
22		-.30		.46	.32						.31		.47	
(PUBLIC SC)														
2			.32				.76							.75
6						.40	.68					.40	.31	.67
11		.42				.66						.66		
14		.79							.77					
17		.73							.70					
19		.77							.77					
21		.40				.63			.31			.62		
(SOCIAL ANXIETY)														
4	.55					.63		.52	-.34			.66		
8	.57							.55						
10	.67	.31						.66		-.32				
(-)12	.75							.75						
16	.56	.32						.53						
23	.72							.72						

Appendix A7

Exploratory factor analyses (into n factors) of responses to the SCS from two samples of sixth form pupils

Sample: MIXCOLLEGE A

ROTATION	VARIMAX								OBLIQUE (DELTA = 0.0)							
FACTOR	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
Eigenvalue	3.95	2.70	1.66	1.59	1.23	1.16	1.10	1.03								
Variance %	17.2	11.7	7.2	6.9	5.3	5.0	4.8	4.5								
Item number and scale																
(PRIVATE SC)																
1			.63							.63						
(-)3																
5			.36		.39	-.34				.31				-.35	.34	
7					.36										.35	
(-)9					.51										.51	
13				.44									-.43			
15	.31		.54							.54						
18				.73									-.78			
20								.49								-.50
22							.68					.71				
(PUBLIC SC)																
2	.44								.44							
6	.70								.67							
11	.58								.50							
14	.74								.78							
17					.37										.39	
19	.70								.67							
21	.57								.54							
(SOCIAL ANXIETY)																
4		.84								-.81						
8						.58								.61		
10		.73								-.73						
(-)12		.47								-.44						
16		.47				.40				-.37				.38		
23						.33								.33		

Appendix A7

Exploratory factor analyses (into n factors) of responses to the SCS from two samples of sixth form pupils

Sample: BOYCOLLEGE

ROTATION	VARIMAX				OBLIQUE (DELTA = 0.0)			
FACTOR	1	2	3	4	1	2	3	4
Eigenvalue	10.54	1.89	1.37	1.25				
Variance %	45.8	8.2	6.0	5.4				
Item number and scale								
(PRIVATE SC)								
1	.32	.46		.47			.41	-.45
(-)3	-.35	-.51		-.36			-.51	.30
5	.33	.38	.33	.38				-.35
7	.42	.30	.47					
(-)9	-.54	-.46					-.49	
13	.63	.44			-.31	-.46		
15	.34			.53	.36	.43	-.31	
18				.81				-.56
20	.55						-.33	-.94
22	.39			.61				
(PUBLIC SC)								-.69
2	.57			.31				
6	.59		.53				-.39	
11			.68	.31	-.32		-.73	
14	.57		.68				-.58	-.31
17			.52	.31			-.97	
19	.58		.46				-.43	-.30
21	.68						-.66	
(SOCIAL ANXIETY)					.40		-.50	
4			.57	.48	-.30	.57		
8		.68				.76		
10		.57	.37			.56		
(-)12	-.62				-.48			
16	.40	.42	.62		-.52	.32		
23		.71				.79		

Appendix A7

Exploratory factor analyses (into n factors) of responses to the SCS from two samples of sixth form pupils

Sample: MIXCOLLEGE B (re-test)

ROTATION	VARIMAX							OBLIQUE (DELTA = 0.0)						
FACTOR	1	2	3	4	5	6	7	1	2	3	4	5	6	7
Eigenvalue	4.94	3.00	1.85	1.41	1.28	1.08	1.02							
Variance %	21.5	13.1	8.0	6.1	5.6	4.7	4.4							
Item number and scale														
(PRIVATE SC)														
1			.47	.34						.44		.36		
(-)3	.37			.35							-.33			
5				.78							-.78			
7						.58						.59		
(-)9				.33	.51									.51
13					.55	.37						-.35		.52
15			.81							.83				
18			.47							.45				
20						.52						.50		
22					.49									.50
(PUBLIC SC)														
2	.30												-.58	
6	.68							.63						
11	.74							.74						
14	.69							.75						
17	.37							.33						
19	.58							.54						
21	.65			.30				.56						
(SOCIAL ANXIETY)														
4		.87							.92					
8		.37							.34					
10		.63							.62					
(-)12		.54							.54					
16		.59							.58					
23		.50							.44					

Appendix A8

Confirmatory (3 factors) and exploratory (n factors) factor analyses of responses to the Similarity SCS from a sample of 13 year old school children

Sample: SIMILARITY A

ROTATION	VARIMAX					OBLIQUE (DELTA = 0.0)				
FACTOR	1	2	3	4	5	1	2	3	4	5
Eigenvalue	2.39	1.76	1.37	1.24	1.14					
Variance %	15.9	11.8	9.1	8.3	7.6					
Item number										
1		.45					.46			
2	.31			.34				.33		
3										
4	.73					.75				
5				.43				.43		
6	.67					.66				
7		.52	.31				.52			
8					.55				.55	
9			.62							-.58
10			.39							-.39
11		.44					.45			
12	.52					.53				
13										
14				-.58				-.59		
15					.37				.37	

Appendix A8

Confirmatory (3 factors) and exploratory (n factors) factor analyses of responses to the Similarity SCS from a sample of 13 year old school children

Sample: SIMILARITY A

ROTATION	VARIMAX			OBLIQUE (DELTA = 0.0)		
FACTOR	1	2	3	1	2	3
Eigenvalue	1.72	1.04	0.65			
Variance %	50.3	30.6	19.0			
Item number						
1		.31			.31	
2	.38			.36		
3						
4	.71			.71		
5			.45			.45
6	.65			.66		
7		.57			.56	
8						
9		.52			.51	
10						
11		.43			.43	
12	.54			.55		
13						
14			.54		.32	.57
15		.37			.38	

Appendix A 8

Confirmatory (3 factors) and exploratory (n factors) factor analyses of responses to the Similarity SCS from a sample of 13 year old school children

Sample: SIMILARITY B (re-test)

ROTATION	VARIMAX					OBLIQUE (DELTA = 0.0)				
FACTOR	1	2	3	4	5	1	2	3	4	5
Eigenvalue	1.85	1.75	1.55	1.40	1.20					
Variance %	19.0	11.7	10.4	9.3	8.0					
Item number										
1					.58					-.59
2	.53			.72		.54				
3							.75			
4	.54	.37	.41			.45		-.40	-.33	
5				.48			.49			
6	.65					.64				
7		.54							-.58	
8			-.49					.49		
9	.35	.45							-.43	
10			-.53					.54		
11			.48					-.48		
12	.56					.51				
13					-.50					.49
14										
15		.53		.33		-.36	.32		-.49	

Appendix A 8

Confirmatory (3 factors) and exploratory (n factors) factor analyses of responses to the Similarity SCS from a sample of 13 year old school children

Sample: SIMILARITY B (re-test)

ROTATION	VARIMAX			OBLIQUE (DELTA = 0.0)		
FACTOR	1	2	3	1	2	3
Eigenvalue	2.24	0.98	0.83			
Variance %	55.2	24.2	20.6			
Item number						
1	.35			.36		
2	.41			.41		
3		.56			.57	
4	.67		.40	.66		-.37
5		.50			.52	
6	.53			.53		
7						
8			-.43			.43
9	.57			.56		
10			-.59			.60
11			.48			-.46
12	.60			.59		
13		.34			.33	
14						
15		.37			.37	

Appendix A9

Confirmatory (3 factors) and exploratory (n factors) factor analyses of responses to the Minimal Group SCS from a sample of 11 year old school children

Sample: MINIMAL GROUP

ROTATION	VARIMAX						OBLIQUE (DELTA = 0.0)					
FACTOR	1	2	3	4	5	6	1	2	3	4	5	6
Eigenvalue	2.13	1.65	1.45	1.25	1.48	1.00						
Variance %	17.8	13.7	12.1	10.4	9.6	8.4						
Item number												
1			.90						.92			
2						.73						.70
3					.88					.88		
4	.80						.82					
5	.37			.62	.36		.41	-.30		.35	.59	
6		.78						.78				
7	-.37		.58				-.36		.55			
8	.71						.70					
9		.80						.81				
10				.79							.80	
11	.63			-.34	.33		.59			.32	-.39	
12		.36			.32	.67		.31				.72
13												
14												
15												

Appendix A9

Confirmatory (3 factors) and exploratory (n factors) factor analyses of responses to the Minimal Group SCS from a sample of 11 year old school children

Sample: MINIMAL GROUP

ROTATION	VARIMAX			OBLIQUE (DELTA = 0.0)		
FACTOR	1	2	3	1	2	3
Eigenvalue	1.52	0.97	0.85			
Variance %	45.4	29.0	25.6			
Item number						
1			.33		.33	
2						
3						
4	.74			.74		
5	.33		.69	.33	.69	
6		.70				-.71
7	-.33		.48	-.33	.47	
8	.55			.54		
9		.52				-.51
10						
11	.50			.50		
12		.34				-.33
13						
14						
15						

Appendix A10

Inter-correlations between self-consciousness factors derived from confirmatory factor analyses

SAMPLE	PRIV-PUB	PRIV-SOC.ANX.	PUB-SOC. ANX.
UKC 1980	.35	.15	.06
UKC 1981	.25	.07	.16
MANCH 1980	.16	-.01	.11
UKC SURVEY 1983	.18	.11	-.01
UKC 1983	.01	.08	.13
MIXCOLLEGE A	.30	-.01	.13
MIXCOLLEGE B	.46	.05	.00
BOYCOLLEGE	.12	.01	.03
	FACTORS 1-2	FACTORS 1-3	FACTORS 2-3
SIMILARITY A	.11	.16	.12
SIMILARITY B	.05	-.05	-.13
MINIMAL GROUP	.00	-.10	-.08

Appendix A11

Test-retest correlations from SCS subscale and item scores

MIXCOLLEGE (n = 118)

ITEMS	test-re-test r	p	ITEMS	test-re-test r	p	ITEMS	test-re-test r	p
1	.43	.001	2	.28	.001	4	.75	.001
3	.01	n.s.	6	.39	.001	8	.57	.001
5	.46	.001	11	.36	.001	10	.69	.001
7	.45	.001	14	.44	.001	12	.52	.001
9	.38	.001	17	.77	.001	16	.51	.001
13	.35	.001	19	.39	.001	23	.49	.001
15	.47	.001	21	.20	.013			
18	.44	.001						
20	.39	.001						
22	.42	.001						
Private Self-Consciousness	.53	.001	Public Self-Consciousness	.48	.001	Social Anxiety	.80	.001

SIMILARITY (n = 74)

ITEMS	test-re-test r	p	ITEMS	test-re-test r	p	ITEMS	test-re-test r	p
1	.41	.001	4	.43	.001	5	.36	.001
7	.45	.001	6	.62	.001	14	.37	.001
11	.21	.033	12	.49	.001			
Factor 2 (Pri-ate)	.30	.005	Factor 1 (Pub-lic)	.67	.001	Factor 3 (Anxie-ty)	.39	.001

Appendix A12

Sex differences in responses to the SCS

SAMPLE	Male N	Female N	PRIVATE M	PRIVATE sd	PRIVATE F	PRIVATE sd	PRIVATE t	PRIVATE p	PUBLIC M	PUBLIC sd	PUBLIC F	PUBLIC sd	PUBLIC t	PUBLIC p	SOCIAL ANXIETY M	SOCIAL ANXIETY sd	SOCIAL ANXIETY F	SOCIAL ANXIETY sd	SOCIAL ANXIETY t	SOCIAL ANXIETY p	PRIV & PUB M	PRIV & PUB sd	PRIV & PUB F	PRIV & PUB sd	PRIV & PUB t	PRIV & PUB p
UKC SURVEY 1983	114	49	32.06	6.11	33.41	5.97	-1.35	n.s.	23.85	5.03	25.65	4.48	-2.27	.026	19.30	4.47	20.14	5.63	-0.93	n.s.	55.87	8.68	59.06	8.07	-2.26	.026
UKC 1983	25	43	34.96	4.80	33.98	4.95	0.81	0.5	23.12	4.66	24.30	4.69	-1.01	n.s.	18.64	4.03	18.07	5.61	0.49	n.s.	58.08	5.58	58.28	8.17	-0.12	n.s.
UKC 1981	29	42	33.52	5.97	32.57	1.03	0.62	n.s.	23.31	5.63	23.05	5.24	0.20	n.s.	16.55	3.94	17.86	5.14	-1.21	n.s.	56.83	8.75	55.62	9.91	0.54	n.s.
MANCH 1980	22	51	34.45	6.75	34.25	5.47	0.12	n.s.	21.95	4.91	24.14	5.06	-1.73	.092	17.36	2.85	19.49	5.27	-2.22	.030	56.41	9.51	58.39	8.56	-0.84	n.s.
UKC 1980	31	36	25.81	5.00	26.00	5.57	-0.15	n.s.	17.39	3.39	18.94	3.25	-1.91	.061	14.22	2.77	14.92	3.83	-0.85	n.s.	43.19	6.78	44.94	7.71	-0.99	n.s.
MIXCOLLEGE A	99	35	31.94	4.94	32.49	5.47	-0.52	n.s.	25.79	4.64	26.31	4.88	-0.56	n.s.	18.93	4.39	19.23	6.62	-0.25	n.s.	57.73	7.76	58.80	8.49	-.066	n.s.
MIXCOLLEGE B	94	30	32.36	5.61	32.40	7.13	-0.03	n.s.	24.66	4.88	26.13	5.36	-1.35	n.s.	18.87	4.36	19.70	6.27	-0.67	n.s.	57.13	9.25	58.53	10.43	-.066	n.s.
SIMILARITY A	82	100	6.71	2.64	6.81	2.71	-0.25	n.s.	6.41	3.21	5.67	2.85	1.64	n.s.	6.16	2.24	5.42	2.67	2.04	.043	13.07	4.51	12.56	3.96	0.80	n.s.
SIMILARITY B	37	43	6.79	2.40	7.40	1.78	-1.28	n.s.	6.11	2.83	5.56	2.44	0.92	n.s.	5.29	2.22	6.30	1.98	-2.16	.034	12.86	4.64	12.95	3.14	-0.10	n.s.
MINIMAL GROUP A	33	30	15.79	4.77	14.10	4.33	1.47	n.s.	11.82	4.34	10.13	4.04	1.60	n.s.							27.61	6.99	24.23	6.04	2.05	.044
B			16.03	5.21	13.57	5.73	1.78	.08													27.85	7.50	23.70	7.00	2.27	.027

Appendix A13

Item and subscale means for each sample's responses to the SCS

SAMPLE	UKC SURVEY 1983		UKC 1983		UKC 1981		MANCH 1980		MIXCOLLEGE A		MIXCOLLEGE B		UKC 1980	
N	186		68		71		73		134		124		67	
ITEM NO.	$\bar{x}$	sd	$\bar{x}$	sd	$\bar{x}$	sd	$\bar{x}$	sd	$\bar{x}$	sd	$\bar{x}$	sd	$\bar{x}$	sd
1	3.22	1.78	3.49	1.13	3.34	1.29	3.56	1.27	3.15	1.15	3.14	1.23	2.64	0.88
(-) 3	3.74	0.99	3.87	0.90	3.83	1.00	3.74	1.05	3.54	1.06	3.67	1.04	3.06	0.76
5	3.30	1.10	3.53	0.99	3.28	1.15	3.59	1.12	3.46	1.20	3.37	1.07	2.75	0.94
7	2.62	1.23	3.00	1.20	2.68	1.33	2.85	1.28	3.01	1.29	3.07	1.18	2.30	1.03
(-) 9	3.76	1.03	3.62	0.95	3.69	0.92	3.89	1.02	3.45	1.02	3.61	0.93	3.07	0.84
13	3.57	0.92	3.87	0.86	3.72	0.88	3.93	0.77	3.60	0.87	3.48	1.00	2.97	0.78
15	3.04	1.17	3.28	1.15	3.31	1.27	3.25	1.29	2.95	1.10	3.05	1.11	2.27	1.00
18	2.28	1.27	2.47	1.22	2.18	1.45	2.30	1.27	2.30	1.26	2.37	1.17	1.75	0.99
20	3.53	1.02	3.87	0.96	3.82	1.06	4.05	0.68	3.57	1.78	3.53	1.09	2.93	0.78
22	3.20	1.17	3.25	1.02	3.17	1.31	3.10	1.11	3.00	1.27	2.96	1.12	2.45	0.84
Private SC	32.30	5.96	34.34	4.88	33.01	6.40	34.26	5.89	32.06	5.05	32.31	5.97	26.18	5.29
Items	3.23		3.43		3.30	1.39	3.43	1.22*	3.21	1.32	3.23	1.21	2.62	0.79
2	3.42	1.08	3.21	1.19	3.11	1.10	3.34	1.04	3.72	0.96	3.58	0.92	2.40	0.85
6	3.89	0.92	3.68	1.03	3.46	0.95	3.49	0.99	4.03	0.98	3.80	1.02	2.76	0.74
11	3.39	1.10	3.34	1.03	3.37	1.11	3.37	1.05	3.71	1.05	3.57	1.00	2.61	0.72
14	3.64	0.99	3.37	1.05	3.35	0.97	3.32	1.08	3.95	0.91	3.72	1.07	2.66	0.79
17	2.86	1.45	2.98	1.39	3.00	1.35	3.03	1.41	2.83	1.51	3.89	1.40	2.25	0.97
19	3.64	1.03	3.50	1.03	3.31	1.15	3.37	1.07	3.90	1.00	3.79	1.04	2.72	0.75
21	3.64	0.93	3.75	0.92	3.61	0.95	3.63	0.87	3.84	0.89	3.68	0.88	2.91	0.71
Public SC	24.48	4.83	23.87	4.68	23.21	5.42	23.55	4.94	25.99	4.68	25.06	5.00	18.31	3.41
Items	3.50		3.41		3.32	1.20	3.36	1.18*	3.71	1.14	3.58	1.14	2.62	0.63
Priv + Pub SC	56.73	8.50	58.21	7.28	56.11	9.41	57.80	8.84	58.04	7.96	57.47	9.53	44.13	7.29
4	3.38	1.27	3.03	1.18	2.85	1.23	3.32	1.21	3.51	1.36	3.49	1.22	2.46	0.82
8	3.53	1.22	3.40	1.25	3.44	1.38	3.40	1.29	3.42	1.35	3.45	1.22	2.66	0.93
10	3.11	1.28	2.93	1.14	2.87	1.26	3.03	1.18	3.20	1.21	3.19	1.15	2.28	0.81
(-)12	3.80	1.30	2.53	1.20	2.17	1.04	2.60	1.12	2.84	1.24	2.79	1.24	2.16	0.85
16	3.78	1.20	3.65	1.27	3.52	1.25	3.73	1.12	3.65	1.28	3.70	1.16	2.81	0.93
23	2.65	1.32	2.70	1.21	2.54	1.34	2.66	1.12	2.24	1.28	2.49	1.30	2.07	0.97
Social Anxiety	19.31	4.90	18.28	5.06	17.38	4.76	18.72	4.72	18.95	5.05	19.13	4.89	14.45	3.42
Items	3.22		3.05		2.90	1.58	3.12	1.38*	3.16	1.69	3.19	1.48	2.41	0.79

* variance

Appendix B

Appendix B1

Summary of dependent measures[1]

What colour is your hair?

	Strongly agree				Strongly disagree
Boys[3] are friendly	1	2	3	4	5
Boys are untidy	1	2	3	4	5
Boys are bad at sport	1	2	3	4	5
Boys are well behaved	1	2	3	4	5
Boys are short	1	2	3	4	5
Boys are naughty	1	2	3	4	5
Boys are good at writing	1	2	3	4	5

1. These are for Study 2, Experiment 1. For Experiment 2 only own sex was used as group to be rated, and the page was headed: 'Below are some of the things which X [opposite sex] at this school has said about Y [own sex]. Show how much you agree or disagree with each statement by ticking a box for each one below.'

2. Alternatively: Are you male or female?
   What colour are your eyes?
   How old are you?
   What is your name?
   Are you a good swimmer?

3. **Alternatively:** Girls
   Children in Mr. X's [own] class
   Children in Mr. Y's [other] class
   Children of my age
   Younger children.

Appendix B2

ANOVA and mean table for General Bias Scores from Experiment 1

(df = 1,36)

Dependent Variable	Independent Variable	MS	MSe	F
	CONDITION X SEX	0.90	15.42	0.66
SEX	CONDITION	3.60	15.42	0.23
	SEX	72.90	15.42	4.73*
	C X S	0.03	12.87	0.002
AGE	C	7.22	12.87	0.56
	S	7.22	12.87	0.56
	C X S	9.03	11.90	0.76
CLASS	C	0.63	11.90	0.05
	S	18.23	11.90	1.53

* $p < .05$

Means for General Bias Scores, by Sex and Condition

COMPARISON DIMENSION	SEX OF S	CONDITION OSA	CONDITION CONTROL	TOTAL
SEX	M	0.4a	1.3^{b}	0.85_{α}
	F	3.4^{b}	3.7^{b}	3.55^{β}
	Both	1.9_{A}	2.5_{A}	2.20_{A}
AGE	M	4.6ab	5.4bc	5.00_{β}
	F	3.7a	4.6ab	4.15_{β}
	Both	4.15_{B}	5.0_{B}	4.55_{B}
CLASS	M	0.2ab	-0.5ab	-0.15_{α}
	F	0.6^{b}	1.8^{bc}	1.20_{α}
	Both	0.4_{AC}	0.65_{C}	0.53_{C}

Different subscripts of a type differ significantly at $p < .05$.

Appendix B3

ANOVA and mean table for repeated measures analysis of Experiment 1 (df = 1,36)

Variable		Condition: Control M	Control F	S.A. M	S.A. F	Effect	MS	MSe	F
Sex	M1	2.2	3.2	2.3	3.0	G	3.20	0.58	5.6*
	F1	2.4	2.2	2.4	2.1	G x S	6.05	0.58	10.52**
	M2	3.2	2.5	3.1	2.7	G	2.81	0.53	5.34*
	F2	3.2	3.6	3.2	3.0	G x S	2.11	0.53	4.01*
	M3	2.4	3.4	3.0	3.4	G	3.61	0.59	6.15*
						G x S	6.61	0.59	11.26**
	F3	2.9	2.1	2.8	2.7	G x S x CON	2.11	0.59	3.60
	M4	4.5	4.2	3.7	3.7	G	4.51	1.02	4.42*
	F4	3.4	3.8	3.0	4.0	G x S	3.61	1.02	3.54
	M5	2.7	2.9	2.7	3.2	S	3.20	0.45	7.07*
	F5	2.2	2.6	2.1	2.6	G	5.00	0.77	6.50*
	M6	3.7	2.7	3.6	3.2	S	2.81	0.82	3.44
	F6	3.7	3.4	3.4	3.6				
	M7	3.9	3.7	3.7	3.8	S x CON	2.45	0.76	3.21
	F7	3.9	3.4	3.4	4.0				
Age	Y1	2.1	2.4	2.6	2.5				
	A1	2.1	2.2	2.5	2.3				
	Y2	2.7	3.1	3.0	2.8	G	3.61	0.57	6.30*
	A2	3.7	3.4	3.2	3.0				
	Y3	3.9	3.0	3.3	3.4	G	3.61	0.46	7.86**
	A3	2.9	2.7	3.2	3.1				
	Y4	3.6	3.4	3.0	3.2	CON	1.80	0.63	2.88
	A4	4.3	3.9	4.0	3.8	G	9.80	0.63	15.68***
	Y5	3.4	3.5	3.4	3.4	G	27.61	0.68	40.33***
	A5	2.2	2.2	2.2	2.4				
	Y6	2.8	3.1	3.4	2.7	G	5.00	0.63	7.96**
	A6	4.0	3.3	3.6	3.1	G x S x CON	1.80	0.63	2.87
	Y7	3.3	1.9	2.3	2.7	G	30.01	1.02	29.48***
	A7	3.6	3.7	4.1	3.7	G x S x CON	6.61	1.02	6.50*
Class	D1	2.5	2.6	2.5	2.2	G x CON	1.51	0.49	3.07
	C1	2.3	1.9	2.6	2.3				
	D2	2.9	3.0	3.0	2.7				
	C2	3.0	3.1	2.9	2.8				
	D3	3.4	2.8	3.2	2.9	S	2.45	0.69	3.56
	C3	3.0	2.4	2.8	2.9	G	1.80	0.63	2.87
	D4	4.6	4.0	4.1	4.1	G	2.11	0.37	5.65*
	C4	3.8	3.9	3.7	4.1	G x S	1.51	0.37	4.05*
	D5	2.3	2.7	2.9	2.6	G x S x CON	2.45	0.54	4.57&
	C5	2.8	2.3	2.6	2.8				
	D6	3.5	3.2	3.5	3.2				
	C6	3.5	3.3	3.4	3.1				
	D7	4.0	3.7	3.9	3.1	S	2.45	0.45	5.48*
	C7	4.1	3.9	4.1	4.0	G	2.45	0.46	5.35*

Characteristic being rated

1 = Friendly
2 = Naughty
3 = Well behaved
4 = Bad at sport
5 = Good at writing
6 = Untidy
7 = Short

Category being rated

M = Males
F = Females
Y = Younger children
A = Own age children
D = Different school class
C = Own school class

Independent variables

G = Ingroup/Outgroup repeated measure
S = Sex (Male versus Female)
CON = Condition (Control versus S.A.)

Significance

* p < .05
** p < .01
*** p < .001

Appendix C

Appendix C1

Pilot study instructions delivered to subjects

Good morning everyone. My name is Mr. Abrams. I am a research worker from Kent University. I am going to ask you to do a number of things today and I'll explain about each part as we come to it. But before I do that I would like to say two things. First, it is very important that there should be no talking at all while I am explaining things. Listen very carefully to what I say so that you are sure you know what to do.

Second, if there is anything you don't understand - anything at all - don't ask your neighbour but put up your hand and one of us will come over. It is very important that you do not disturb each other.

The first thing we are going to do is all to do with artistic preferences, and in particular artistic preferences about music. So I am going to hand out a sheet of paper to each of you now and I'll read through the instructions with you.

[HAND OUT SHEETS]

Will you all get a pen or a pencil ready. Right, start by printing your name at the top of the sheet on the line [point to it].

[READ THROUGH REFERENCES SHEET
and explain 'artistic preferences']

Now Mrs. Smith will collect up your preference sheets and she will mark them to see which composer you preferred.

While Mrs. Smith is doing that I want to tell you about the second thing we're going to do. It is quite different from what you have just done. In a few minutes I shall be handing each of you an envelope. This envelope will have three things in it. There will be a sheet of paper like this [SHOW INFORMATION SHEET] and a folded booklet like this [SHOW FOLDED SHEETS]. There will also be a booklet made up of smaller pages. I am going to tell you about how to fill this one in now. Each page will look something like this [DRAW ON BOARD or show poster]. In this part of the study I want you to distribute points, and you'll see just why in a moment. But just now I want to explain how to answer this booklet.

Suppose you were asked to distribute points between me and Mrs. Smith. This is just an example ... in the booklets it will be something different. Suppose Mrs. Smith is A and I am B. Well, do do this you can choose any one of these seven boxes. And, as you can see, the numbers in each box are slightly different. Now the numbers along the top are points for A (that's Mrs. Smith) in this case; and the numbers along the bottom are for B (that's me). So suppose you choose this box [POINTS TO END BUT ONE ON LEFT]. Then A would get 7 points and B would get 5 points. But you might choose this one (third from right), in which case A would get 10 points, and B would get 11. Or you might choose this one (centre), where each gets 9 points. And it's completely up to you which box you choose

on each page. You just study the page carefully and choose one box and one box only and put a circle around it like this [DEMONSTRATES]. When you have done that you fill in the lines left blank at the bottom of the page. There are instrucions about how to do that on each page.

Now as I read out your name please come up and collect your envelope but do not take anything out.

[WAIT TILL ALL SEATED]

Now I want you all to be very quiet - put up your hand if you have any questions. First of all I want you to take out the large sheet of paper and the booklet of small pages [DEMONSTRATES]. Leave the folded booklet in the envelope. .

Now, the large sheet of paper explains what this bit of the study is about. I will read through it with you. I want you to read it very carefully. First it says which music you preferred. Then it says that ' so that ... numbers'. And you can see which number you are in your group.

Next it tells you what the study is about. Read this bit very carefully and silently.

Just to remind you again on each page, put a circle around one box and then fill in the gaps in the sentences at the bottom of the page. The points do not stand for anything special. Think of this as a game where you have to pay out points. Once again I want you to work on your own without talking. And if you need any extra information or help put up your hand and I will come over.

Well, if you are all clear what to do, just read through your instruction sheets again, then put them back in the envelope and start filling in your booklets. When you have finished put your booklet face down on the desk and wait silently until everyone else has finished too.

Now check that you have filled in every page.

Now take the folded booklet out of the envelope and put the other things back in.

Now in this booklet most of the questions look like this [SHOW POSTER]. As you can see, there are 7 numbers. Now for this example, if you find singing very hard you would put a circle around number 1; if it were very easy circle 7. If it is somewhere in between circle 4 and if it is slightly harder or slightly easier you can circle any of these numbers to show just what you think.

Right, start answering the questions. Put your hand up if you are confused about what to do.

Appendix C2

Music preference score sheet

NAME.....

We are doing a study which is about what music people prefer. What we want you to do is to show us which music you prefer from two different modern composers. The names of the two composers are KABELAC and RILEY.

We shall ask you to listen to pieces of music from each of these composers, one after the other. They will not be in any special order though. Each time we play two pieces we would like you to compare them. If you like the first piece of music you put a cross in the first column which is marked "First Piece". If you prefer the second piece of music put a cross in the second column which is marked "Second Piece". You are to do this for each of the pairs of pieces that we play for you.

This is not a school test or anything like it. There will be no marks awarded because there are no right or wrong answers. Just put what you think.

	First Piece	Second Piece
1st pair of pieces	☐	☐
2nd pair of pieces	☐	☐
3rd pair of pieces	☐	☐

Appendix C3a
Matrix booklet instructions and pages

DISTRACTED CONDITION

You preferred the KABELAC music.

So that your answers are kept secret we have given people numbers.
You are person number 25 of the KABELAC group

This is a study about how people remember points and numbers. When you fill in this booklet you should choose a box on each page (put a circle around it) to give points to people from the two groups. It is important that you fill in the spaces at the bottom of each page to show which people you gave the points to and how many points you gave to each one.

The points do not stand for anything special. I am just interested in the things that you remember about them and about the numbers of the people. I will hand out some more questions later after everyone has finished filling in their booklet. You should work on your own, without talking. If you need any extra help, put up your hand and I will come over to see you. Begin with the first page and remember not to miss any pages out.

Thank you for taking part in this study about remembering points and numbers.

Booklet for people who are in the KABELAC group.

These numbers are points for:

Person number 10 of the RILEY group

Person number 6 of the KABELAC group

4	5	6	7	8	9	10
1	3	5	7	9	11	13

Write below, the details of the points that you have chosen:

Person number____was given_____ points.

Person number____was given_____ points.

Appendix C3a

STANDARD CONDITION

You preferred the RILEY music.

So that your answers are kept secret we have given people numbers. You are person number 4 of the RILEY group.

This is a study about making decisions. When you fill in the booklet you should choose a box on each page (put a circle around it) to give points to people from the two groups. You also have to fill in the spaces at the bottom of each page to show how many points you decided to give to each person.

The points do not stand for anything special. I am just interested in your decisions and that sort of thing. I will hand out some more questions a bit later on, after everyone has finished filling in their booklet. You should work on your own, without talking. If you need any extra help put up your hand and I will come over to see you. Begin with the first page and be careful not to miss any pages out.

Thank you for taking part in this study about making decisions.

Booklet for people who are in the RILEY group.

These numbers are points for:

Person number 12 of the KABELAC group	5	6	7	8	9	10	11
Person number 15 of the RILEY group	2	4	6	8	10	12	14

Write below, the details of the points that you have chosen:

Points for person number 12 of the KABELAC group:_____

Points for person number 15 of the RILEY group:_____

Appendix C3a

ENHANCED CONDITION

You preferred the KABELAC music

So that your answers are kept secret we have given people numbers. You are person number of the KABELAC group.

This is a study about people in the Kabelac and the Riley groups. When you fill in the booklet you should choose a box on each page (put a circle around it) to give points to people from the two groups. You also have to fill in the spaces at the bottom of each page to show which groups the points were for and which group was your group.

The points do not stand for anything special. I am just interested in the groups that you are in and that sort of thing. I will hand out some more questions a bit later on, after everone has finished filling in their booklet. You should work on your own, without talking. If you need any extra help, put up your hand and I will come over to see you. Begin with the first page and be careful not to miss any pages out.

Thank you for taking part in this study about the Kabelac and the Riley groups .

Booklet for people who are in the KABELAC group.

These numbers are points for:

Person number 10 of the RILEY group

Person number 12 of the KABELAC group

7	8	9	10	11	12	13
7	6	5	4	3	2	1

Write below, the details of the points that you have chosen:

Points for person number 10 were for the_____group. This is_____

Points for person number 12 were for the_____group. This is_____

Appendix C3b
Second dependent measure booklet

- 1 -

BOOKLET 2 - QUESTIONNAIRE

How well did you understand how to answer the questions in the booklet?

very well 1 2 3 4 5 6 7 not at all well

- 4 -

How much did you think about the group that you were in ?

very much 1 2 3 4 5 6 7 very little

How much did you think about the numbers of people you gave points to ?

very much 1 2 3 4 5 6 7 very little

How much did you think about the amount of points that you gave ?

very much 1 2 3 4 5 6 7 very little

Appendix C3b

- 2 -

How much do you think that the study was about each of the things in the list below? Circle a number to show what you think for each line.

	very much						not at all
Remembering Things	1	2	3	4	5	6	7
Giving Points	1	2	3	4	5	6	7
Hearing Music	1	2	3	4	5	6	7
People in Groups	1	2	3	4	5	6	7
Making Decisions	1	2	3	4	5	6	7
Numbers	1	2	3	4	5	6	7

- 7 -

How proud do you feel to be a member of your group?

very proud 1 2 3 4 5 6 7 not at all proud

How friendly do you feel towards members of the other group ?

very friendly 1 2 3 4 5 6 7 not at all friendly

In the task that you have just done how would you describe the two groups ?

as two very similar groups of children 1 2 3 4 5 6 7 as two very different groups of children

Appendix C3b

- 3 -

When you gave out the points how much did you try to do these things?

	always						never
Give as much as I could to both groups	1	2	3	4	5	6	7
Give as much as I could to my group	1	2	3	4	5	6	7
Give the same to both of the groups	1	2	3	4	5	6	7
Give my group more than the other group	1	2	3	4	5	6	7
Give out points in no particular way	1	2	3	4	5	6	7

Appendix C3b

- 5 -

If you meet the children from the other group how much do you think you will like them?

very much very little

1 2 3 4 5 6 7

How much do you feel that you really belong to your group?

very much not at all

1 2 3 4 5 6 7

- 6 -

How much do you enjoy making decisions?

very much not at all

1 2 3 4 5 6 7

How much do you enjoy learning points and numbers?

very much not at all

1 2 3 4 5 6 7

Appendix C4
Means for main effects from Minimal Group experiment

VARIABLE	CONDITIONS 21 ENHANCED	20 STANDARD	19 DISTRACTED	28 HIGH PRIVATE	29 LOW PRIVATE	28 HIGH PUBLIC	29 LOW PUBLIC	60 OVERALL
MD + MIP vs MJP	2.08	0.90	0.61	1.17	1.22	1.49	0.91	1.22
MIP + MD vs F	2.25	0.65	0.16	1.52	0.78	1.10	1.20	1.06
MD vs MJP + MIP	1.59	1.22	1.19	1.43	1.51	1.57	1.37	1.34
MJP + MIP vs MD	0.24	0.32	-0.28	0.13	-0.02	0.44	-0.32	0.10
F vs MIP + MD	2.21	2.45	1.86	2.13	2.38	2.17	2.34	2.18
MJP vs MD + MIP	-0.25	-0.73	-0.67	-0.77	-0.24	-0.51	-0.49	-0.54
STRATEGY								
MIP (MEGIV)	3.57	2.45	3.47	3.25	3.28	2.82	3.69	3.17
MJP (ALLGIV)	4.19	4.35	3.79	4.07	4.00	3.93	4.14	4.12
F (EAGIV)	4.43	4.65	4.26	4.25	4.69	4.64	4.31	4.45
MD (DIFFGIV)	3.38	3.45	4.21	3.71	3.80	3.50	4.00	3.67
NONE (RANDGIV)	4.62	3.55	3.21	4.43	3.40	4.07	3.72	3.82
AFFECT								
INGROUP PRIDE	4.09	4.40	4.16	3.36	5.21	4.04	4.55	4.22
BELONGINGNESS	4.19	4.30	4.11	3.57	4.83	4.04	4.38	4.20
OUTGROUP FRIENDLY	2.62	2.75	3.26	2.43	3.24	2.46	3.21	2.87
LIKING	2.76	3.65	2.68	2.50	3.55	2.57	3.48	3.03
INTERGROUP SIMILARITY	3.28	4.20	3.68	3.93	3.55	3.75	3.72	3.72
TASK								
COMPREHENSION	3.28	3.00	2.53	3.04	2.76	2.93	2.86	2.95
REMEMBERING	3.67	3.50	4.26	3.82	3.72	3.64	3.90	3.80
GIVING POINTS	4.09	3.40	3.15	3.39	3.66	3.25	3.79	3.57
MUSIC	2.90	2.75	3.68	3.96	2.34	3.14	3.14	3.10
PEOPLE IN GROUPS	3.71	4.15	3.84	4.21	3.76	3.71	4.24	3.92
DECISIONS	4.09	3.40	3.32	3.71	3.34	3.46	3.59	3.61
NUMBERS	3.05	3.15	3.16	3.11	3.14	2.50	3.72	3.12
ORIENTATION								
THINKING OF GROUPS	4.09	4.40	4.37	4.82	3.93	4.46	4.28	4.28
NUMBERS	4.00	5.00	3.79	3.89	4.52	3.75	4.66	4.27
GIVING POINTS	3.86	4.30	4.06	3.54	4.48	3.75	4.28	4.07
ENJOYING DECISIONS	4.00	4.75	4.74	4.07	4.86	4.04	4.90	4.48
LEARNING NUMBERS	5.29	4.15	4.05	4.29	4.86	4.39	4.76	4.52

Appendix C5

Means for significant interactions between condition and self-consciousness

	ENHANCED	(n)	STANDARD	(n)	DISTRACTED	(n)	MSe	F
PRIDE								
HIGH PRIVATE	2.82^{a}	11	4.17	6	3.45^{ab}	11		
LOW PRIVATE	5.89^{c}	9	4.75	12	5.13^{b}	8	2.84	3.62*
BELONGINGNESS								
HIGH PRIVATE	3.27	11	4.83	6	3.18	11		
LOW PRIVATE	5.11	9	4.25	12	5.38	8	4.03	2.72†
ENJOYING LEARNING NUMBERS								
HIGH PUBLIC	6.0^{b}	9	4.11	9	3.20^{a}	10		
LOW PUBLIC	4.55	11	4.78	9	5.00	9	4.26	4.63*

† p .10
* p .05

Means with different subscripts differ significantly (Newman-Keuls, $p < .05$).

Appendix D

Appendix D1

Design and cell ns of Brown and Abrams' (1982) experiment

Attitudes of Outgroup		Intergroup Task: Competitive		Intergroup Task: Co-operative	
		Similar	Different	Similar	Different
STATUS OF OUTGROUP	HIGHER	17	18	17	19
	EQUAL	18	17	18	17
	LOWER	16	17	15	19

Appendix D1

Dependent measures from Brown and Abrams' (1982) experiment

Use the diagram on the left to show how good you think the two schools are at Maths and English. Place an 'X' on the line to mark the position of your school and an 'O' on the line to mark the position of the other school.

High standard

Low standard

We said there would be a prize for the schools depending on how well they did on the test. Suppose that there was £60 of prize money and you were awarding it, how much would you give to each school? First, think how well you think both schools did on the test. Then tick the box which shares out the money in the way you think is best. Remember you can tick only ONE box.

Amount for your school	£60	£50	£40	£30	£20	£10	£0
Amount for other school	£0	£10	£20	£30	£40	£50	£60

Name .....

Class or Form .....

How proud do you feel to be a member of your school?

not at all proud _____ very proud

How well do you think the test measured your ability at English and Maths?

not at all well _____ very well

In the test you have just done, how would you describe the two schools that took part?

as two teams working together _____ as two teams on opposite sides

In the test you have just done, how well do you think your school did?

not at all well _____ very well

In the test you have just done, how well do you think the other school did?

not at all well _____ very well

Appendix D1 (cont'd.)

If you were to meet the children from the other school how much do you think you would like them?

not at all — very much

How competitive do you feel towards the other school?

not at all competitive — very competitive

How important do you think it is to be good at Maths and English?

not at all important — very important

How much do you feel that you really belong to your school?

not at all — very much

How cooperative do you feel towards the other school?

not at all cooperative _____ very cooperative

In the things they think are important to learn at school, how alike would you say your school is to the school you have been paired with?

very different _____ very alike

Just suppose that later on in the year the two schools had to work together on a common task. How well do you think they would work together?

not at all well _____ very well

Appendix D2

Summary of main results from Brown and Abrams (1982)

The dependent measures were first subjected to 3-way (Task x Status x Attitudes) ANOVAs. Manipulation checks revealed a main effect of Task on perceptions of the situation as competitive. There was a main effect of Status on perceived ability of the outgroup and a main effect of Attitudes on perceived attitudinal similarity (see tables below).

A measure of evaluative bias was obtained by subtracting ratings of ingroup performance from ratings of outgroup performance. A simple linear main effect of Status (most bias against lowest status) was qualified by a Status x Attitudes interaction. Quite simply, for outgroups with equal status the addition of attitude similarity led to more bias; for outgroups with different attitudes the pattern is reversed.

On measures of liking for the outgroup, similar attitude outgroups were preferred over different attitude outgroups. Furthermore, subjects felt more co-operative to similar attitude outgroups.

On the reward measure there was more ingroup bias in Competitive than in Co-operative conditions and more bias as outgroup status decreased.

Finally, subjects answered more test questions correctly under Co-operative than Competitive conditions, but only when the outgroup held different attitudes (Task x Attitude interaction, $F = 3.9$, $p < .05$) or was of equal and lower status (Task x Status interaction, $F = 3.2$, $p < .05$).

Appendix D3

Tables for main results of Brown and Abrams' (1982) experiment

MAIN EFFECTS OF TASK (df = 1,194)

	COMPETITION n = 101	CO-OPERATION n = 105	MSe	F
GOAL ORIENTATION	6.43	2.50	73.16	104.20***
COMPETITIVENESS	6.08	5.36	6.55	3.97*
CO-OPERATIVENESS	4.91	5.72	5.60	6.40*
WORKING WITH OUTGROUP	4.91	5.87	4.38	11.17***
TEST ATTAINMENT	16.66	18.63	51.62	3.96*
REWARDS	3.52	3.21	0.59	7.50**

MAIN EFFECTS OF STATUS (df = 2,190)

	HIGH n=70	EQUAL n=70	LOW n=67	MSe	F
EVALUATIVE BIAS	0.37	0.80	1.44	5.32	3.58**
REWARDS	3.18	3.39	3.52	0.59	3.46*
STATUS BIAS	0.32	1.13	2.52	5.80	13.27***
STATUS OF OUTGROUP	6.05	5.59	4.48	4.24	9.40***
TEST ITEMS ATTEMPTED	24.75	24.90	22.69	34.31	3.20*

MAIN EFFECTS OF ATTITUDES (df = 1,195)

	SIMILAR n=100	DIFFERENT n=106	MSe	F
LIKING OF OUTGROUP	5.39	4.77	4.91	4.29*
CO-OPERATIVENESS	5.80	4.87	5.60	8.55**
PERCEIVED SIMILARITY	5.91	2.72	6.66	77.99***
STATUS OF OUTGROUP	5.83	4.97	4.24	8.21**

Appendix D3 (cont'd.)

STATUS X ATTITUDE INTERACTION ON EVALUATIVE BIAS (df = 2,190)

ATTITUDES	STATUS HIGH	(n)	EQUAL	(n)	LOW	(n)	MSe	F
SIMILAR	-0.29	34	1.08	36	1.03	30	5.32	3.09*
DIFFERENT	1.00	36	0.50	34	1.81	32		

STATUS X TASK INTERACTION ON INGROUP PRIDE (df = 2,194)

TASK	STATUS HIGH	(n)	EQUAL	(n)	LOW	(n)	MSe	F
COMPETITION	6.11	35	6.94	34	6.38	32	4.77	5.22**
CO-OPERATION	6.36	36	6.00	35	7.79	34		

STATUS X TASK INTERACTION ON TEST ATTAINMENT (df = 2,196)

TASK	STATUS HIGH	(n)	EQUAL	(n)	LOW	(n)	MSe	F
COMPETITION	18.91	35	16.40	35	14.55	33	51.62	3.24*
CO-OPERATION	17.42	36	20.17	35	18.32	34		

TASK X ATTITUDE INTERACTION ON TEST ATTAINMENT (df = 1,196)

TASK	ATTITUDE SIMILAR	(n)	DIFFERENT	(n)	MSe	F
COMPETITION	17.55	51	15.79	52	51.62	3.94*
CO-OPERATION	17.52	50	19.64	55		

Key

† $p < .10$
* $p < .05$
** $p < .01$
*** $p < .001$

Appendix D4

Tables for significant effects of self-consciousness not reported in Chapter 7

TABLE FOR FIGURE 1:
TASK X ATTITUDE X PRIVATE SELF-CONSCIOUSNESS INTERACTION ON REWARDS (df = 1,151)

TASK - PRIVATE SELF-CONSCIOUSNESS	COMPETITION HIGH	(n)	COMPETITION LOW	(n)	CO-OPERATION HIGH	(n)	CO-OPERATION LOW	(n)	MSe	F
SIMILAR ATTITUDES	3.74^{a}	23	3.13^{b}	23	3.13^{b}	15	3.07^{b}	28	0.45	7.24**
DIFFERENT ATTITUDES	3.43	21	3.59	22	3.29	21	3.18	22		

TABLE FOR NOTE 2:
PRIVATE SELF-CONSCIOUSNESS X STATUS INTERACTION ON EVALUATIVE BIAS (df = 2,154)

SELF-CONSCIOUSNESS	STATUS HIGH	(n)	EQUAL	(n)	LOW	(n)	MSe	F
HIGH PRIVATE	1.17	30	0.33	21	1.97	31	5.49	2.69†
LOW PRIVATE	-0.17	30	1.20	41	0.92	25		

TABLE FOR FIGURE 3:
SELF-CONSCIOUSNESS X ATTITUDE INTERACTION ON COMPETITIVENESS WITH OUTGROUP (df = 1,64)

ATTITUDE	SELF-CONSCIOUSNESS HIGH PRIVATE/ LOW PUBLIC	(n)	HIGH PUBLIC/ LOW PRIVATE	(n)	MSe	F
SIMILAR	6.08	24	5.00	17	6.96	4.50*
DIFFERENT	5.08	24	5.52	21		

† $p < .10$
* $p < .05$
** $p < .01$

Means with different subscripts are significantly different (Newman-Keuls, $p < .05$).

Appendix E

We are conducting some research into attitudes and feelings about education. Please show how much you agree or disagree with each of the statements below. You may use any of the numbers in the 1 to 7 range to show exactly what you think. If you:

strongly disagree, circle 7
disagree, circle 6
mildly disagree, circle 5
don't know, circle 4
mildly agree, circle 3
agree, circle 2
strongly agree, circle 1

Work quickly and don't spend too much time over any question. Your answers will be kept completely confidential.

	strongly agree			don't know			strongly disagree
I feel strong ties with this College	1	2	3	4	5	6	7
People should be free to choose where they are educated	1	2	3	4	5	6	7
Education should be more geared to the needs of industry	1	2	3	4	5	6	7
Education in fee-paying schools is better than in state schools	1	2	3	4	5	6	7

P.T.O.

	strongly agree			don't know			strongly disagree
I am proud to be associated with this College	1	2	3	4	5	6	7
It is better to go on to do a degree than to enter the workforce at 18	1	2	3	4	5	6	7
Teachers usually treat us as adults and with respect	1	2	3	4	5	6	7
I do not care much about what type of education I receive	1	2	3	4	5	6	7
I have only a weak sense of belonging to this College	1	2	3	4	5	6	7
Discipline at school is far too strict	1	2	3	4	5	6	7

Below are the names of local schools. For each question below write the names of the schools which you think answer it best.

King's School	Archbishop's	Simon Langton
Geoffrey Chaucer	Frank Hooker	St. Edmond's
St. Anselm's	Frank Montgomery	

Which schools are MC most often compared with?

1)_____ 2)_____

As a member of MC, which schools do you feel most competitive with?

1)_____ 2)_____

When the A level results come out, which schools do you most want MC to do better than?

1)_____ 2)_____

P.T.O.

Which of these schools are the most similar to MC ?

1)_____ 2)_____

Finally, on the lines below, write how you think the pupils at MC differ from those at the two schools you mention above.

_____

_____

_____

_____

Thank you for taking part in this research.

Appendix E2

Pre-test choice of outgroup responses

QUESTION	CHOICE	BC	PS	GR1	GR2	SEC1	SEC2	SEC3	SEC4
		PUBLIC SCHOOLS		GRAMMAR SCHOOLS		SECONDARY MODERN SCHOOLS			
SCHOOL COMPARED WITH	1st	70	43	13	1	2	0	1	0
	2nd	44	48	29	5	0	0	0	0
		114	91	42	6	2	0	1	0
FEEL MOST COMPETITIVE TOWARDS	1st	60	57	11	0	0	0	0	0
	2nd	39	46	25	3	1	0	1	0
		99	103	36	3	1	0	1	0
WANT TO BEAT AT A-LEVELS	1st	36	75	10	0	1	5	1	1
	2nd	51	25	32	6	5	3	3	0
		87	100	42	6	6	8	4	1
MC IS MOST SIMILAR TO	1st	64	42	16	4	0	1	0	0
	2nd	48	39	26	6	1	2	1	0
		112	81	42	10	1	3	1	0

Appendix E3

Significant univariate effects from significant MANOVAs in the pre-test (Sex; Private self-consciousness; Public self-consciousness)

EFFECTS OF SEX (df = 1,133)

	Males	Females	MSe	F
Feeling strong ties with school	3.46	2.63	3.49	5.18*
Fee-paying schools are better	2.69	3.54	3.27	5.79*

EFFECTS OF PRIVATE SELF-CONSCIOUSNESS ON PRE-TEST (df = 1,130)

	HIGHS n=67	LOWS n=67	MSe	F
Pride in college	2.72	3.43	2.80	6.14*
I do not care about my education	6.40	5.75	2.14	6.77**
People should be able to choose their school	2.03	2.72	2.89	5.47*
Discipline at school is too strict	5.13	4.29	2.83	8.28**

EFFECTS OF PUBLIC SELF-CONSCIOUSNESS ON PRE-TEST (df = 1,130)

	HIGHS n=76	LOWS n=58	MSe	F
Strong ties	2.79	3.84	3.40	10.29**
Pride in college	2.62	3.67	2.80	10.35**
Weak sense of belonging	5.22	4.26	4.11	6.29*
Do not care about education	6.53	5.48	2.14	13.59***
Fee-paying schools are better	2.63	3.28	2.80	5.18*

* $p < .05$
** $p < .01$
*** $p < .001$

INGROUP AUDIENCE CONDITION

Please read this sheet very carefully

INSTRUCTIONS

This part of our research involves the pupils both from MC and also from BC . The research is into various aspects of education and schools. In your envelope you will find two booklets. In these you will be asked to make various judgements and state some of your attitudes.

In conducting research we feel that it is important to give as much information and reassurance as is possible to the people involved. So when you have completed your booklets they will be kept to show to some of the other pupils taking part. But only the other MC pupils will see what you have written. Your booklets will never be seen by pupils from BC school. What we would like you to do is to take out the BLUE booklet first. Read the instructions on its cover and then answer the questions inside it. When you have done that, replace the blue booklet and take out the second one (with the GREEN cover). Read the instructions on the cover and then answer the questions. Then replace that booklet also in you envelope and wait silently until everyone else has finished too. If you have any questions please do not call out - just put up your hand and I will come over to see you.

You should work quickly and silently, without disturbing anyone else. When you have finished answering the booklets it might be a good idea just to check that you have answered all of the questions.

OUTGROUP AUDIENCE CONDITION

Please read this sheet very carefully

INSTRUCTIONS

This part of our research involves the pupils both from MC and also from BC . The research is into various aspects of education and schools. In your envelope you will find two booklets. In these you will be asked to make various judgements and state some of your attitudes.

In conducting research we feel that it is important to give as much information and reassurance as is possible to the people involved. So when you have completed your booklets they will be kept to show to some of the other pupils taking part. But none of the other MC pupils will see what you have written. Your booklets will only be seen by pupils from BC , school. What we would like you to do is to take out the BLUE booklet first. Read the instructions on its cover and then answer the questions inside it. When you have done that, replace the blue booklet and take out the second one (with the GREEN cover). Read the instructions on the cover and then answer the questions. Then replace that booklet also in you envelope and wait silently until everyone else has finished too. If you have any questions please do not call out - just put up your hand and I will come over to see you.

You should work quickly and silently, without disturbing anyone else. When you have finished answering the booklets it might be a good idea just to check that you have answered all of the questions.

CONFIDENTIAL CONDITION

Please read this sheet very carefully

INSTRUCTIONS

This part of our research involves the pupils both from MC and also from BC . The research is into various aspects of education and schools. In your envelope you will find two booklets. In these you will be asked to make various judgements and state some of your attitudes.

In conducting research we feel that it is important to give as much information and reassurance as is possible to the people involved. So when you have completed your booklets they will be kept confidential from the other pupils taking part. So none of the other MC pupils will see what you have written. Your booklets will never be seen by pupils from BC school. What we would like you to do is to take out the BLUE booklet first. Read the instructions on its cover and then answer the questions inside it. When you have done that, replace the blue booklet and take out the second one (with the GREEN cover). Read the instructions on the cover and then answer the questions. Then replace that booklet also in you envelope and wait silently until everyone else has finished too. If you have any questions please do not call out - just put up your hand and I will come over to see you.

You should work quickly and silently, without disturbing anyone else. When you have finished answering the booklets it might be a good idea just to check that you have answered all of the questions.

NAME:..... YEAR:(6i or 6ii)..... SEX: M. F

BOOKLET NUMBER ONE

In this booklet you will be asked to mark lines or to circle numbers. You are free to mark the lines or circle the numbers whereever you want - to show just what you think. When you are answering the questions do so fairly quickly, but it is important that you read the instructions at the top of each page carefully, so that you are sure of what to do.

In the list below are a number of aspects of schools. Please show how good or how bad the two schools are for each item. So for each item place an X on the line to mark the position of MC and place an O to mark the position of BC .

REMEMBER to place both an X for MC and an O for BC on each line.

	very bad	very good
Learning English		
Doing Well		
Drama		
Interesting People		
A level Results		
Making Friends		
Learning Maths		
Moral Fibre		
Sports		
Discipline		
Excitement		
Music		
Getting to University		
Having Fun		

Please indicate where you would place pupils at the two schools if you were asked to describe them in terms of the qualities shown below. Place an X on each line to mark the position of pupils at MC . and place an O on each line to mark the position of pupils at BC .

formal		informal
individual		conformist
sociable		unsociable
stupid		intellegent
good at sport		bad at sport
lively		dull
down to earth		posh
modest		conceited
wealthy		poor
awkward		relaxed
broad-minded		narrow-minded
snobbish		not snobbish
unconfident		confident
academic		non-academic
boring		exciting
mature		immature

As a part of our research into attitudes an feelings about education we would like you to show how much you agree or disagree with each of the statements below. You may use any of the numbers in the 1 to 7 range to show exactly what you think. If you:

strongly agree, circle 1
agree, circle 2
mildly agree, circle 3
are unsure, circle 4
mildly disagree, circle 5
disagree, circle 6
strongly disagree, circle 7

	strongly agree			unsure			strongly disagree
I feel strong ties with this College	1	2	3	4	5	6	7
People should be free to choose where they are educated	1	2	3	4	5	6	7
Education in fee paying schools is better than in state schools	1	2	3	4	5	6	7
I am proud to be associated with this College	1	2	3	4	5	6	7
It is better to go on to do a degree than to enter the work-force at 18	1	2	3	4	5	6	7
I do not care much about what type of education I receive	1	2	3	4	5	6	7
I have only a weak sense of belonging to this school	1	2	3	4	5	6	7

From our earlier research and from informal interviews we have found out some of the things which the pupils at the two schools think. Below are some of their opinions. Some of them were made by pupils from MC (they have got 'M-C' printed next to them) and some of them were made by pupils from BC (they have got 'BC' printed next to them). Please show how much you agree or disagree with each statement by circling a number for each one.

		strongly agree			unsure			strongly disagree
(BC)	"Maths and English are the most important subjects at school"	1	2	3	4	5	6	7
(MC)	"Teachers usually treat pupils as adults and with respect"	1	2	3	4	5	6	7
(MC)	"Education should be more relevant to the needs of industry"	1	2	3	4	5	6	7
(BC)	"School discipline is far too strict"	1	2	3	4	5	6	7
(MC)	"The main purpose of school is to get you to pass exams"	1	2	3	4	5	6	7
(BC)	"One is expected to take on a lot of responsi-bilities at school"	1	2	3	4	5	6	7

NAME:..... YEAR: (6i or 6ii)..... SEX: M F

BOOKLET NUMBER TWO

As for the first booklet - mark the lines etc to show just what you think. Answer the questions fairly quickly, but remember to read the instructions at the top of each page carefully, so that you are sure of what to do.

Place an X on the line to show what you think.

How friendly do you feel towards BC ?

very friendly — not at all friendly

Place an X on the line to show what you think

How competitive do you feel towards BC ?

very competitive — not at all competitive

Place an X on the line to show what you think.

How do you see the pupils of BC ?

as all being much the same as each other

as all being very different from each other

Place an X on the line to show what you think.

If you were a pupil at BC , how much do you think you would like the other pupils there ?

would like them very much

would not like them at all

Place an X on the line to show what you think.

How do you view BC and MC ?

as two very similar schools

as two very different schools

Place an X on the line to show what you think.

How do you see the pupils of MC ?

as all being much the same as each other

as all being very different from each other

At both BC and at MC there are some pupils who do very well at A-levels and other exams. Some of the possible reasons for doing so well are shown below. Next to each reason show how important it is for the two schools. On each line put an X for MC and put an O for BC

(importance)

	not at all	completely
Good luck		
A lot of effort		
A lot of ability		
Doing easy subjects		
Having excellent teachers		
Type of parents		
Other things (say what).....		

At both BC and at MC there are some pupils who do very poorly at A-levels and at other exams. Some of the possible reasons for doing so badly are shown below. Next to each reason show how important it is for the two schools. On each line put an X for MC and put an O for BC

(importance)

	not at all	completely
Bad luck		
Too little effort		
Too little ability		
Doing difficult subjects		
Having terrible teachers		
Type of parents		
Other things (say what).....		

Place an X on the line to show what you think.

How much do you think that a pupil of BC would like the pupils of MC if he or she were here ?

would like them very much		would not like them at all

Supposing that we could give some money to the two schools for taking part in this research. Choose a box and place a tick in it to show how much you would give to each school. Remember, you can only tick one box.

Amount for MC :	£80	£70	£60	£50	£40	£30	£20	£10	£ 0
Amount for BC :	£ 0	£10	£20	£30	£40	£50	£60	£70	£80

Appendix E4 (cont'd.)
(Manipulation checks)

The questions on this page are trying to find out whether you noticed and understood the instructions you were given earlier on. It is also trying to find out what your impressions of the study are. So it is important that you answer as honestly as you can. Your answers will be kept completely confidential.

Who will the booklets you have just filled in be shown to ? (Circle the answer you think is correct).

Other pupils at MC	YES	NO
Pupils at BC	YES	NO
None of the pupils at either school	YES	NO

How much have you enjoyed taking part in this study ?

very much 1 2 3 4 5 6 7 very little

How seriously did you treat the questions you were asked earlier on ?

seriously 1 2 3 4 5 6 7 flipantly

What do you think that the study is all about ? Please write a sentence or two on the lines below.

_____

_____

_____

When you were answering the questions in the booklets how much did you try to do the things shown in the list below ?

	very much						very little
support MC	1	2	3	4	5	6	7
support BC	1	2	3	4	5	6	7
make MC better than BC	1	2	3	4	5	6	7
support both MC and BC	1	2	3	4	5	6	7
not try anything in particular	1	2	3	4	5	6	7

Appendix E5

Condition x Private x Public self-consciousness design

CONDITION	PRIVATE / PUBLIC	HIGH HIGH	HIGH LOW	LOW HIGH	LOW LOW	ROW TOTAL
INGROUP		11	9	14	11	45
CONFIDENTIAL		9	6	9	15	39
OUTGROUP		16	7	7	4	34
COLUMN TOTAL		36	22	30	30	118

Appendix E6

Reliability of identification scale

Scale	Mean	Median	Variance	Range	Cronbach's α
Pre-test	9.53	8.25	24.11	18	.84
Experiment	9.69	8.20	17.12	18	.87
Combined	19.23	17.50	98.47	36	.93

Appendix E7

Repeated measure (ratings of ingroup, ratings of outgroup) effects from Condition x Identification MANOVAs

VARIABLES	UNIVARIATE ITEMS (df)	MSe	F	Ingroup	Outgroup	Bias
EVALUATIVE	ENGLISH (1,99)	1.33	34.42****	6.66	5.78	>
1=very bad	DO WELL	2.29	39.00****	6.75	5.30	>
9=very good	DRAMA	3.54	55.95****	6.92	4.95	>
	PEOPLE	5.69	20.36****	6.36	4.92	>
	A-LEVELS	2.10	16.03****	6.47	5.47	>
	FRIENDS	1.17	16.72****	6.54	5.57	>
	MATHS.	2.35	4.29*	5.98	5.53	>
	SPORT	3.01	84.71****	8.01	4.71	>
	DISCIPLINE	2.87	10.63**	5.48	6.26	<
	EXCITEMENT	2.74	27.63****	5.23	3.92	>
	GOING TO UNIVERSITY	2.19	14.65****	6.56	5.70	>
	FUN	4.06	22.34****	6.06	4.69	>
	AVERAGED F (14,1386)	2.90	33.04****			
TRAIT	FORMAL (1,108)	2.93	86.89****	6.03	3.82	>
1=trait	INDIVIDUAL	2.91	32.99****	4.68	6.07	>
9=opposite trait	SOCIABLE	2.80	33.41****	3.37	4.76	>
	STUPID	3.03	7.71***	6.20	5.43	>
	GOOD AT SPORT	3.91	108.44****	2.66	5.40	>
	LIVELY	2.72	87.52****	3.43	5.40	>
	DOWN-TO-EARTH	3.30	72.24****	4.05	6.10	>
	RICH	1.73	24.88****	4.23	3.37	?
	AWKWARD	2.22	34.43****	6.03	4.96	>
	BROAD-MINDED	3.00	4.26*	4.69	5.19	>
	SNOBBISH	3.76	34.48****	5.73	4.25	>
	TIMID	2.29	16.90****	6.51	5.62	>
	BORING	2.74	45.23****	5.63	4.27	>
	AVERAGED F (16,1728)	2.93	38.57****			
ATTRIBUTIONS	SUCCESS: EFFORT	0.33	4.30*	5.74	5.60	?
1=very little	SUCCESS: TEACHERS	0.71	9.03**	5.33	4.97	>
7=completely	FAILURE: TEACHERS	1.07	10.71***	3.94	4.35	>
	FAILURE: PARENTS	0.75	8.79**	3.49	3.88	>
	AVERAGED F (112,1284)	0.60	3.96****			
ORIENTATION	PERCEIVED HOMOGENEITY (9,112)	3.34	47.73****	5.81	4.24	>
1=all same						
1=all different	AVERAGED F (2,246)	3.78	21.49****			
SELF-REPORTED SUPPORT STRATEGY	SUPPORT	t (124)	8.23****	3.69	5.13	>

Appendix E7 (cont'd.)

ITEMS WHERE NO SIGNIFICANT BIAS WAS EXPRESSED (ps > .1)

ITEM TYPE	ITEMS (df)		MSe	F	Ingroup	Outgroup	Bias
EVALUATIVE	MORALS (1,99)		2.80	0.82	5.40	5.31	>
	MUSIC		2.50	0.12	5.67	5.59	>
TRAIT	MODEST (1,108)		2.67	2.50	4.98	5.44	>
	CLEVER		3.20	2.42	3.72	4.15	>
	MATURE		0	0.00	4.81	4.94	>
ATTRIBUTIONS	SUCCESS:	LUCK (1,107)	0.40	0.10	3.09	3.09	=
		ABILITY	0.41	1.55	5.59	5.46	>
		TASK	0.61	1.23	3.25	3.36	=
		PARENTS	0.80	0.005	4.15	4.16	=
	FAILURE:	LUCK	0.40	0.05	3.28	3.25	=
		EFFORT	0.89	0.18	5.42	5.37	=
		ABILITY	0.61	1.46	4.28	4.44	>
		TASK	0.40	0.05	3.76	3.76	=
ORIENTATION	LIKING FOR OUTGROUP (1,112)		3.14	1.38	4.17	4.49	>

TABLE SHOWING THE MULTIVARIATE Fs

Variables	Wilks' Lamda	df	F
EVALUATIVE	.26	14,86	17.60****
TRAIT	.23	16,93	19.53****
ATTRIBUTION	.71	12,96	3.30***
ORIENTATION	.70	2,111	23.74****

* p < .05
** p < .01
*** p < .001
**** p < .0001

Appendix E8

Significant Condition x Private x Public self-consciousness effects (from MANOVAs and from ANOVAs on summed scores)

CONDITION X PRIVATE X PUBLIC SELF-CONSCIOUSNESS MULTIVARIATE INTERACTIONS

MULTIVARIATE VARIABLES	F	df	Wilks' Lamda	p	UNIVARIATE ITEMS (df)	MSe	F
STRATEGIES	1.96	14,196	.77	.023	TAKE TASK SERIOUSLY (2,104)	1.33	3.41*
					SUPPORT BC	1.30	3.94*
					SUPPORT BOTH BC & MC	2.11	3.01†
BIAS	2.12	6,206	.89	.052	SUPPORT MC-BC (2,105)	2.94	5.33**

CONDITION X PRIVATE X PUBLIC ANOVAS ON SUMMED SCORES (df = 2,90)

VARIABLES	MSe	F
EVALUATIONS	221.56	1.77
TRAITS	222.58	3.53*
COMBINED	315.80	4.63*

MEANS FOR SIGNIFICANT CONDITION X PRIVATE X PUBLIC INTERACTIONS

CONDITION	IN				CONF				OUT			
PRIVATE	HIGH		LOW		HIGH		LOW		HIGH		LOW	
PUBLIC	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW
TAKE TASK SERIOUSLY	1.45	2.11	2.36	2.18	2.44	1.33	2.11	2.80	2.00	2.28	2.43	3.00
SUPPORT BC	4.91	3.22	4.07	5.55	5.67	4.83	4.22	5.13	4.88	5.17	6.43	5.25
SUPPORT BOTH MC AND BC	3.55	4.11	4.77	4.45	5.33	3.67	4.44	4.97	4.19	4.29	5.14	3.75
SUPPORT MC-SUPPORT BC	-1.09	0.00	-1.36	-2.27	-2.00	-1.33	-0.67	-0.67	-1.63	-1.83	-4.29	-1.00
TOTAL TRAIT BIAS	21.55	15.50	21.79	23.70	26.50	4.50	26.75	10.00	16.69	20.71	34.14	7.00
COMBINED	12.18	9.89	20.79	19.80	20.00	1.00	27.75	9.71	14.47	21.83	36.14	-5.00

† $p < .10$
* $p < .05$
** $p < .01$

Appendix E9

Significant multivariate effects of Sex (from Condition x Sex MANOVAs)

MULTIVARIATE VARIABLES	UNIVARIATE ITEMS (df)	MSe	F	96 Male	30 Female	Bias
TRAIT	(BC) FORMAL (1,115)	3.87	4.83*	3.64	4.40	>
	(BC) LIVELY	3.76	9.32**	5.65	4.60	>
	(BC) DOWN-TO-EARTH	3.67	9.68**	6.44	5.00	>
	(BC) AWKWARD	3.15	10.78***	4.64	5.97	>
	(BC) BORING	3.11	6.71**	4.13	4.90	>
	(BC) MATURE	4.28	6.96**	4.57	5.57	>
ATTRIBUTIONS 1=not at all 7=completely	(BC) SUCCESS:TASK (1,114)	2.69	5.67*	3.57	2.70	
	(BC) SUCCESS:TEACHER	2.14	6.13*	4.77	5.57	
	(BC) SUCCESS:PARENT	2.90	5.26*	4.36	3.42	
	(MC) FAILURE:TASK	2.51	4.04*	3.94	3.20	
	(MC) FAILURE:TEACHER	3.88	3.95*	3.76	4.53	
SUPPORT STRATEGY	MAKE MC > BC (1,118)	2.57	12.94***	3.97	5.27	>
	SUPPORT BOTH MC AND BC	2.12	3.97*	4.46	3.86	>
DIFFERENTIATION ON EVALUATIONS AND TRAITS	PEOPLE (1,102)	9.01	9.99**	1.93	-0.10	>
	FRIENDS	4.24	5.23*	1.14	0.43	>
	SPORT	5.92	10.73***	3.76	1.83	>
	EXCITEMENT	5.25	4.43*	1.52	0.63	>
	GOOD AT SPORT	7.77	5.66*	-3.05	-1.77	>
	LIVELY	5.02	11.78***	-2.31	-0.87	>
	TIMID	4.95	6.21*	1.13	0.14	>
	BORING	5.21	4.76*	1.61	0.57	>
	MATURE	6.23	8.18**	0.52	1.07	>
ATTRIBUTION DIFFERENTIATION	SUCCESS:PARENTS (1,114)	1.91	4.11*	-0.15	0.43	

TABLE SHOWING THE MULTIVARIATE Fs

Variables	Wilks' Lamda	df	F
TRAIT	.49	32,84	2.76***
ATTRIBUTIONS	.65	24,91	2.03**
SUPPORT STRATEGY	.81	7,112	3.77***
DIFFERENTIATION ON EVALUATIONS AND TRAITS	.57	30,73	1.80*
ATTRIBUTION DIFFERENTIATION	.81	12,103	1.95*

* $p < .05$
** $p < .01$
*** $p < .001$

Appendix E10

Manipulation checks

Expected audience	IN	CONF	OUT
Actual audience			
IN	**36**	10	3
CONF	1	**39**	1
OUT	1	2	**35**

Non-expected audience	IN	CONF	OUT
Actual audience			
IN	5	**22**	**25**
CONF	**27**	3	**27**
OUT	**20**	**18**	1

Unsure	IN	CONF	OUT
Actual audience			
IN	5	**14**	**18**
CONF	**13**	0	**13**
OUT	**17**	**18**	2

Boxed cells should be full, others empty if manipulations worked perfectly.

Appendix F

Appendix F1

Significant repeated measure (in-out ratings) MANOVAs

MULTIVARIATE VARIABLES	UNIVARIATE ITEMS (df)	MSe	F	GROUP RATED BC	MC
EVALUATIVE	DO WELL (1,27)	4.27	4.51*	6.17	5.40
	MATHS.	4.85	14.53***	7.18	4.70
	SPORT	3.51	4.56*	6.91	5.49
	EXCITEMENT	4.62	8.67**	4.47	5.61
	MUSIC	3.91	22.07****	6.86	4.64
	GETTING TO UNIVERSITY	4.65	4.39*	6.58	5.69
	FUN	4.00	10.87**	4.83	6.31
TRAITS	FORMALITY (1,28)	5.40	6.88*	4.11	5.42
	STUPIDITY	4.50	10.06**	6.53	5.00
	RICH	3.27	16.04****	3.25	5.14
	CLEVER	5.13	11.70**	2.91	4.80
ORIENTATION	LIKING (1,39)	1.84	11.43**	4.90	3.90

TABLE OF MULTIVARIATE Fs

	Wilks' Lamda	df	F
EVALUATIVE	.15	14,14	5.73***
TRAITS	.22	16,13	2.93*
ORIENTATION	.68	2,38	8.83***

* $p < .05$
** $p < .01$
*** $p < .001$
**** $p < .0001$

Appendix F2

Significant Condition x Identification MANOVAs

EFFECTS OF IDENTIFICATION

MULTIVARIATE VARIABLES	UNIVARIATE ITEMS (df)	MSe	F
EVALUATIVE	(MC) FRIENDS (1,39)	4.93	5.06*
	(BC) SPORT	4.00	4.02*
	(BC) EXCITEMENT	5.54	4.74*
	(BC) MUSIC	6.16	5.13*
	(BC) FUN	6.73	6.56*
ORIENTATION	(BC) HOMOGENEITY (1,36)	4.55	3.00†
	REWARD	1.38	9.45**

EFFECTS OF CONDITION

ORIENTATION	(MC) HOMOGENEITY (2,36)	5.43	5.92**
	SIMILARITY	4.02	3.89*
	REWARDS	1.38	3.45*

CONDITION X IDENTIFICATION INTERACTIONS

ORIENTATION	LIKING OF MC (2,36)	3.94	3.25*
	REWARDS	1.38	3.18†

TABLE OF MULTIVARIATE Fs

Effect	VARIABLES	Wilks' Lamda	df	F
IDENT	EVALUATIVE	.12	30,10	2.40†
	ORIENTATION	.58	8,29	2.67*
CONDIT	ORIENTATION	.42	16,60	1.89*
C X I	ORIENTATION	.40	16,58	2.10*

† $p < .10$
* $p < .05$
** $p < .001$

Appendix F2 (cont'd.)

MEANS FOR SIGNIFICANT EFFECTS OF IDENTIFICATION

ITEM	HIGHS (23)	LOWS (22)
FRIENDS (MC)	6.53	4.69
SPORT (BC)		
EXCITEMENT (BC)	5.13	3.27
MUSIC (BC)	7.22	5.45
FUN (BC)	5.74	3.91
HOMOGENEITY (BC)	6.65	5.23
REWARD	5.52	4.86

MEANS FOR SIGNIFICANT EFFECTS OF CONDITION

ITEM	IN(16)	CONF(14)	OUT(15)
HOMOGENEITY (MC)	6.19	5.21	3.60
SIMILARITY	7.06	6.21	5.07
REWARDS	5.67	5.36	4.60

MEANS FOR SIGNIFICANT CONDITION X IDENTIFICATION INTERACTIONS

ITEM	CONDITION / IDENTIFICATION	IN HIGH(5)	IN LOW(10)	CONF HIGH(7)	CONF LOW(7)	OUT HIGH(11)	OUT LOW(4)
LIKING (MC)		5.25	3.30	3.14	4.29	3.64	5.75
REWARD		7.00	5.00	5.43	5.29	4.91	3.75

Appendix F3

ANOVAs on summed differentiation scores

ANOVA	ITEM	EFFECT	MSe	F	df
CONDITION X IDENTIFICATION	EVALUATIVE	CONDITION	271.43	0.27	2,39
		IDENTIFICATION		5.05*	1,39
		C X I		3.43*	2,39
	TRAITS	CON	411.50	0.35	2,39
		IDENT		1.93	1,39
		C X I		3.11†	2,34
	INGROUP-OUTGROUP SUPPORT	CON	1.83	0.28	2,41
		IDENT		0.37	1,41
		C X I		0.02	2,41
PRIVATE X PUBLIC SELF-CONSCIOUSNESS	EVALUATIVE	PRIV	278.77	0.60	1,29
		PUB		0.66	
		P X P		3.54†	
	TRAIT	PRIV	272.10	0.01	1,27
		PUB		1.19	
		P X P		0.01	
	SUPPORT	PRIV	1.51	0.08	1,40
		PUB		1.29	
		P X P		5.99*	

† $p < .10$
* $p < .05$

Appendix F3 (cont'd.)

MEANS FOR ANALYSES OF SUMMED BIAS SCORES

VARIABLE	CONDITION			IDENTIFICATION	
	IN	CONF	OUT	HIGH	LOW
EVALUATIVE	9.30	10.13	17.17	10.72	5.58
TRAITS	-0.30	4.90	1.45	3.68	-0.67
SUPPORT	0.87	0.54	0.86	0.87	0.63

CONDITION	IN		CONF		OUT	
IDENTIFICATION	HIGH	LOW	HIGH	LOW	HIGH	LOW
EVALUATIVE	1.5	14.5	18.2	-3.3	10.7	-3.3
TRAIT	-11.5	7.2	10.8	-4.0	5.7	-17.5
SUPPORT	1.0	0.8	0.7	0.3	0.9	0.7

VARIABLE	PRIVATE SELF-CONSCIOUSNESS		PUBLIC SELF-CONSCIOUSNESS	
	HIGH	LOW	HIGH	LOW
EVALUATIVE	7.07	10.27	11.00	7.32
TRAIT	3.94	-0.07	8.00	-2.33
SUPPORT	0.81	0.75	1.00	0.55

PRIVATE SELF-CONSCIOUSNESS	HIGH		LOW	
PUBLIC SELF-CONSCIOUSNESS	HIGH	LOW	HIGH	LOW
EVALUATIVE	14.38	-1.29	2.00	12.33
TRAITS	8.56	-2.00	6.75	-2.55
SUPPORT	1.29	-0.14	0.33	0.93

Appendix F4

Significant correlations between EVALUATIVE ratings and dispositional measures (n = 45)

SCALE	VARIABLE	r	p<
IDENTIFICATION	MATHS (BC)	-.38	.01
	EXCITING (BC)	-.37	.01
	MUSIC (BC)	-.39	.005
	FUN (BC)	-.40	.005
	PEOPLE (BC)	-.32	.05
	SPORT (BC)	-.31	.05
	ENGLISH (MC)	.31	.05
	DOING WELL (BC)	-.33	.05
PRIVATE SELF-CONSCIOUSNESS	MUSIC (MC)	-.48	.005
	DRAMA (MC)	-.38	.05
	ENGLISH (MC)	.33	.05
	PASSING EXAMS. (MC)	-.31	.05
PUBLIC SELF-CONSCIOUSNESS	DISCIPLINE (BC)	-.40	.005
	EXCITEMENT (MC)	-.37	.05
	ENGLISH (MC)	.37	.05
	PASSING EXAMS. (MC)	-.30	.05
	MUSIC (MC)	-.32	.05

Appendix F5

Significant correlations between TRAIT ratings and scale scores (n = 46)

SCALE	VARIABLE	r	p<
IDENTIFICATION	STUPID (BC)	-.38	.01
	LIVELY (BC)	.38	.005
	ADULT (MC)	.39	.005
	MATURE (MC)	.35	.05
	SOCIABLE (BC)	.31	.05
PRIVATE	MATURE (BC)	.32	.05
	DOWN-TO-EARTH (MC)	-.30	.05
	RICH (MC)	.34	.05
PUBLIC	GOOD AT SPORT (MC)	.30	.05

Appendix F6

Significant correlations between ORIENTATION, SUPPORT and ATTRIBUTION items and scale scores

a. Significant correlations with ORIENTATION and SUPPORT STRATEGY

SCALE	VARIABLE	r	p<
IDENTIFICATION	COMPETITIVENESS	.44	.001
	SUPPORT (MC)	.45	.001
	SUPPORT (BC)	.36	.01
	SUPPORT BC > MC	.44	.005
PRIVATE	NONE		
PUBLIC	NONE		

b. Significant correlations with ATTRIBUTION items

SCALE	VARIABLE		r	p <
IDENTIFICATION	NONE			
PRIVATE	NONE			
PUBLIC	SUCCESS:	EFFORT (MC)	.37	.05
		ABILITY (MC)	.37	.05

Appendix F7

Significant correlations between scale scores and differentiation scores (in- outgroup rating on each item)

SCALE	VARIABLE	ITEM TYPE	r	p<
IDENTIFICATION	MATHS.	EVALUATIVE	.31	.05
PRIVATE	ENGLISH	EVALUATIVE	.41	.01
	DRAMA		-.32	.05
	FRIENDS		.34	.05
	MATHS		-.34	.05
	MUSIC		-.31	.05
	INDIVIDUAL	TRAIT	.30	.05
	SPORT		.31	.05
	FAILURE: EFFORT	ATTRIBUTION	.32	.05
PUBLIC	A-LEVELS	EVALUATIVE	.40	.05
	FRIENDS		.39	.05
	MUSIC		-.31	.05
	DOWN-TO-EARTH	TRAIT	-.34	.05

Significant correlations between scale scores and summed differentiation scores

SCALE	VARIABLE	r	p<
IDENTIFICATION	EVALUATIVE	.28	.07
PRIVATE	NONE		
PUBLIC	EVALUATIVE	.37	.05
	TRAITS	.30	.05

Appendix G

Attitudes to Society

Please indicate how strongly you agree or disagree with each of the statements below by circling the appropriate number.

	strongly agree						strongly disagree
Drama, music, art and literature are the foundation of a healthy society	1	2	3	4	5	6	7
Men will always want to dominate society	1	2	3	4	5	6	7
Nuclear energy is of vital importance to Britain's future	1	2	3	4	5	6	7
Women are mainly treated as sexual objects	1	2	3	4	5	6	7
Selling off public industries is a mistake	1	2	3	4	5	6	7
Mathematics and science are the most important areas of education	1	2	3	4	5	6	7
It is foolish for women to compete with men	1	2	3	4	5	6	7
Men have the competence to run society	1	2	3	4	5	6	7
Nuclear energy is too dangerous to use	1	2	3	4	5	6	7
Women rely on men for too many things	1	2	3	4	5	6	7
Scientists typically miss out on all the important things in life	1	2	3	4	5	6	7
Spending cuts are the best way to keep Britain efficient	1	2	3	4	5	6	7
Only women develop the skills necessary for child rearing	1	2	3	4	5	6	7
The best features of modern society are the result of scientific advances	1	2	3	4	5	6	7
An education system is society's most valuable asset	1	2	3	4	5	6	7

Put a X in a space on each line below to show where you would place yourself

active		inactive
excitable		calm
left wing		right wing
religious		atheist
cold		warm
feminist		male chauvinist
scientific		artistic
economical		extravagant
mature		immature
proud		modest

Which of the following do you support (please tick):

Public spending cuts _____

Nationalisation of Banks _____

Women's liberation _____

Independence for N. Ireland _____

Confederation of British Industry _____

Nuclear Disarmament _____

T.U.C. _____

Capital punishment _____

Appendix G1 (cont'd.)
Pre-test measures

Please complete the following sentences:

The group I identify with most strongly is _____

_____

When I am in this group I _____

_____

Most of my friends are _____

_____

University students _____

_____

Please rank the following items from 1 (most) to 10 (least) according to how important a part of university education you think they are.

Gaining qualifications	_____	Social life	_____
Meeting people	_____	Joining societies	_____
Learning to think	_____	Learning to write	_____
Developing creativity	_____	Looking after oneself	_____
Sports activities	_____	Other (please specify)	_____

Thank you for taking part in this research.

Appendix G2

Responses to incomplete sentence stems

1. The group I identify with most strongly is ...

Response type	n	Response type	n	Response type	n
Friends	31	Nationality	6	Family and Friends	3
Fun/social	19	Sport	6	Social Class	2
Political	18	Age	5	Religion	2
No Groups	12	School	6	Business	2
Mixed	10	Art types	4		
Like Me	9	Students	4	No response	38
Intellectual	9	Family	4	Total	190

2. When I am in this group I ...

Response type	n	Response type	n	Response type	n
Relax/feel at ease	85	Am myself	6	No different	4
Talk more	16	Relax/am myself	6	Feel more self-conscious	1
Feel less self-conscious	10	Talk less	6		
				No response	56

3. Most of my friends are ...

Response type	n	Response type	n	Response type	n
Positive ('great') etc.	50	Students	13	Away	3
Mixed people	34	Politics	7	Here	1
Similar to Me	18	Negative	6		
Age	13	Not Students	5		
				No response	40

4. University students ....

Response type	n	Response type	n	Response type	n
Neutral (O.K., etc.)	36	Mixed people	21		
Positive	30	Lazy/ privileged	12		
Negative	30	Distinctive	5	No response	56

Appendix G3
Experimental materials

a. Natural Science group report form

REPORT FORM

Please tick to say which group you are from: Pure Scientists ☑ Social Scientists ☐

'Space Exploration is a Waste of Resources'

Ways it wastes: — no use to poorer nations
- decisions to start space exploration are taken by the military (and by scientists). They do not care about wasting resources but about their own interests.
- It isn't of much benefit to poorer people cos they can't afford to ~~buy~~ buy things it produces
- It makes it more likely that the arms race gets worse
- in money terms, the rate of work ~~done~~ done in space is less compared ~~with~~ to that done on earth.
- waste of finding out about outer space like rotation of the universe, etc

Not a waste — if you ignore the financial aspect of it.
- with- satellites, shuttles and technological research, electronic advances the western world has achieved better living conditions
- certain ~~exp's~~ experiments can be done with more control and specification in the absence of gravity, low temperature.
- best way to find out about future energy sources e.g. solar energy, is by doing research in space
- need to understand rotation of the universe and about light and to develop techniques to find life outside earth

BOOKLET NUMBER 1

Please answer this booklet first.

Please circle one of the boxes below to show how many points you would allocate to the Social Science group and the Pure Science group for their performances on the reasoning task.

Points for the Social Science group:	60	50	40	30	20	10	00
Points for the Pure Science group:	00	10	20	30	40	50	60

How important do you think that reasoning skills are in university education?

very important 1 2 3 4 5 6 7 8 9 not at all important

How well do you think that the task reflected reasoning skills?

very well 1 2 3 4 5 6 7 8 9 not at all well

How skilled do you think your group was at reasoning?

very skilled 1 2 3 4 5 6 7 8 9 not at all skilled

How adequate do you think your group's report was?

very adequate 1 2 3 4 5 6 7 8 9 not at all adequate

Appendix G3 (cont'd.)

b. Dependent measures

How skilled do you think that the Pure Science group was at reasoning?

very skilled 1 2 3 4 5 6 7 8 9 not at all skilled

How adequate do you think the Pure Science group's report was?

very adequate 1 2 3 4 5 6 7 8 9 not at all adequate

How well do you think that your group performed?

very well 1 2 3 4 5 6 7 8 9 not at all well

How well do you think that other Social Science groups will perform?

very well 1 2 3 4 5 6 7 8 9 not at all well

How well do you think that other Pure Science groups will perform?

very well 1 2 3 4 5 6 7 8 9 not at all well

BOOKLET NUMBER 2

Please answer this booklet second

For these two questions please put an X for Social Science and an O for Pure Science:

How competitive do you feel towards the other groups?

very much _____ very little

How cooperative do you feel towards the other groups?

very much _____ very little

Place an X on each of the lines below to show where you would place Pure Science students:

flexible	_____	inflexible
friendly	_____	unfriendly
superior	_____	inferior
warm	_____	cold
passive	_____	aggressive
likeable	_____	unlikeable
immature	_____	mature
competitive	_____	cooperative

Place an X on each of the lines below to show where you would place Social Science students:

likeable	_____	unlikeable
superior	_____	inferior
immature	_____	mature
passive	_____	aggressive
competitive	_____	cooperative
friendly	_____	unfriendly
warm	_____	cold
flexible	_____	inflexible

Please indicate how strongly you agree or disagree with each of the statements below by circling the appropriate number.

	strongly agree						strongly disagree
The best features of modern society are the result of scientific advances	1	2	3	4	5	6	7
The social sciences include a university's most relevant and important subjects	1	2	3	4	5	6	7
Women are mainly treated as sexual objects	1	2	3	4	5	6	7
Scientists typically miss out on all the important things in life	1	2	3	4	5	6	7
Social scientists are naive in their understanding of how the world works	1	2	3	4	5	6	7
Drama, music, art and literature are the foundations of a healthy society	1	2	3	4	5	6	7
Mathematics and science are the most important areas of education	1	2	3	4	5	6	7

Below are three statements which most Social Scientists agree with (with 'SSc' next to them) and three statements which most Pure Scientists agree with (with 'PSc' next to them). Please indicate how strongly you agree or disagree with each one by circling the appropriate number.

	strongly agree						strongly disagree
(SSc) Nuclear energy is too dangerous to use	1	2	3	4	5	6	7
(SSc) An education system is society's most valuable asset	1	2	3	4	5	6	7
(PSc) Nuclear energy is of vital importance to Britain's future	1	2	3	4	5	6	7
(SSc) Creativity is more important than productivity	1	2	3	4	5	6	7
(PSc) Selling off public industries is a mistake	1	2	3	4	5	6	7
(PSc) Problem solving should be based upon facts first and ideas second	1	2	3	4	5	6	7

Place an X on each of the lines below to show how you feel about the group that you were working with:

ashamed	_____	proud
happy	_____	sad
negative	_____	positive
enthusiastic	_____	bored
anxious	_____	calm
strong sense of belonging	_____	weak sense of belonging

Appendix G3 (cont'd.)

c. Manipulation checks

Please answer the following questions as honestly as you can:

Which of the following did you notice in your room?

a) a camera and monitor_____ b) a mirror facing you_____ c)neither_____

If you were being filmed in your room, who will now see the videotape?

a) only yourself_____ b) other members of your group_____
c) members of another Pure Science group_____ d) cannot remember_____

How self-conscious did you feel in your room?

very self-conscious ... not at all self-conscious

1 2 3 4 5 6 7 8 9

Thank you for participating in this research.

Appendix G4

Effects of Condition

a. Multivariate analyses

VARIABLES	F	df	Wilks' Lamda	p
EVALUATIVE	0.69	40,240	.64	.92
EVALUATIVE DIFFERENTIATION	0.71	12,201	.88	.73
TRAITS	0.87	64,204	.37	.74
TRAIT DIFFERENTIATION	0.73	32,236	.68	.86
AFFINITY	0.93	24,256	.71	.56
REFERENCED ATTITUDES	1.15	24,264	.66	.29
REFERENCED ATTITUDES-PRETEST	1.18	16,148	.59	.29
ATTITUDES	0.84	28,240	.67	.63
ATTITUDES -PRE-TEST	1.08	20,136	.53	.38

b. Univariate analyses of summed scores

VARIABLE	MSe	F	df	Con	Mir	VCon	VIn	VOut
EVALUATIVE	16.60	0.98	4,68	1.38	1.20	-1.64	0.93	0.38
TRAITS	31.83	0.23	"	6.50	7.79	6.21	6.08	6.27
AFFINITY	29.27	2.53*	"	20.62	18.40	17.43	23.07	20.33
ATTITUDE CONSISTENCY	4.15	1.11	4,39	4.00	6.40	5.50	4.88	5.22
$^{\Delta}$SELF-CONSCIOUSNESS	3.71	11.18****	4,68	7.64^{a}	7.60^{a}	5.86^{b}	4.29^{c}	4.25^{c}

* $p < .05$
**** $p < .0001$
Means with different subscripts differ significantly by Newman-Keuls ($p < .05$).

$^{\Delta}$SELF-REPORTED

Appendix G5

Group Performance

a. Significant correlates of Group Performance

VARIABLE	Pearson's r	n
Number of words	-.65**	73
Task relevance	.25	73
Reward allocation	.22*	72
Adequacy of performance	.25*	73
Strength of PS report	-.27**	73
PS Superiorness	.29**	70
PS Warmth	-.25*	70
Strength of report differentiation	.27*	73
Superiorness differentiation	.23*	70
Warmth differentiation	.21*	70
Pre-post features of society difference	.28*	41
Total characteristics differentiation score	.24*	68

Appendix G5 (cont'd.)

b. Significant multivariate main effects of Group Performance

Multivariate F	df	Wilks' Lamda	Univariate Dependent variables	$F_{(1,66)}$	n=39 Good	n=33 Poor
2.25*	16,51	.58	Trait ratings			
			SS Competitiveness	7.27**	5.10	5.97
			PS Flexibility	4.75*	4.44	4.00
			PS Warmth	6.65*	5.51	4.61
3.11**	8,59	.70	Trait differentiation scores			
			Competitiveness	7.11**	1.10	2.65
			Friendliness	4.62*	-1.66	-0.83
			Warmth	4.71*	-2.21	-1.23

c. Significant interactions between Group Performance and repeated measures (1,66 df)

VARIABLE	MSe	F	SUCCESSFUL GROUPS SS	SUCCESSFUL GROUPS PS	UNSUCCESSFUL GROUPS SS	UNSUCCESSFUL GROUPS PS
Strength of performance	1.39	5.73*	4.08_{b}	4.30_{a}	4.70_{b}	3.93_{a}
Friendliness	1.23	4.62*	2.82_{b}	4.47_{a}	3.20_{b}	4.03_{a}
Warmth	1.64	6.84**	3.32_{a}	5.50_{c}	3.33_{a}	4.60_{b}
Competitiveness	3.68	6.56**	5.05_{bc}	4.00_{c}	6.13_{ab}	3.40_{d}

Key to Appendix G5

SS = Social Scientists being rated
PS = Pure Scientists being rated

† $p < .10$
* $p < .05$
** $p < .01$
Means with different subscripts within a row differ significantly (Newman-Keuls, $p < .05$)

Appendix G6

Significant effects of self-consciousness from Private x Public self-consciousness MANOVAs

Multivariate				Univariate				
Effect	F	df	Wilks' Lamda	Dependent Variables	F	df	High	Low
Public	2.29*	6,49	.78	Referenced Attitudes			(n) 32	26
				SS Nuclear energy	4.08*	1,54	3.56	2.65
				PS Nuclear energy	7.33**		4.13	5.27
				SS Creativity	4.48*		4.03	3.23
				PS Denationalisation	3.55†		4.13	3.23
Public	2.70*	7,44	.70	Attitudes				
				Features of society	5.11*	1,50	4.03	4.88
				Women as sex objects	5.38*		4.52	3.40
				Maths. and sciences	7.25**		4.58	5.46
Private	2.35†	5,32	.73	Pre-post differences on attitudes			(n) 17	23
				Maths. and sciences	9.81**	1,36	0.47	1.22

† p < .10
* p < .05
** p < .01

Appendix G7

Significant correlates of self-esteem
(n = 42)

VARIABLE	r
Adequacy of PS report	.28*
SS Competitiveness	-.26*
SS Friendliness	.27*
SS Warmth	.28*
PS Friendliness	-.29*
Feelings of anxiety	-.37**
Attitude to problem-solving	-.28*
Reported self-consciousness	-.26*
Pre-test self-report activeness	.36**
Pre-test self-rated maturity	-.35*
Pre-test self-report pride	.28*
Pre-post attitude total shift	-.37**
Differentiation on the following:	
Adequacy of reports	-.33*
Likeability	.36**
Friendliness	.46***
Superiorness	.37**
Total group characteristics	.31*
Total evaluative judgements	-.27*
Other scales:	
Private self-consciousness	.27*
Social Anxiety	.48***

* $p < .05$
** $p < .01$
*** $p < .001$

Appendix G8

Significant differences between repeated measures (df = 1,63)

VARIABLE	MSe	F	GROUP RATED Social Scientists	GROUP RATED Natural Scientists
Likeability	1.14	21.84****	3.12	4.23
Competitiveness	3.63	29.76****	5.54	3.74
Friendliness	1.37	40.82****	2.99	4.28
Warmth	1.59	67.86****	3.32	5.10
Flexibility	1.09	19.05****	3.38	5.76
Superiorness	0.76	55.01*	4.60	4.26

* $p < .05$
**** $p < .0001$

Appendix G9

Public self-consciousness x Private self-consciousness x Identification MANOVAs

a. Significant Private x Identification interactions

Multivariate Variables	Univariate Items	MSe	F	High Priv HiIdent (n=15)	High Priv LoIdent (n=14)	Low Priv HiIdent (n=11)	Low Priv LoIdent (n=16)
Evaluative	Reward	0.64	7.29**	3.73^{a}	4.50^{b}	4.36	3.94
	(PS) Skill	1.74	6.65*	4.93	4.07	4.10_{b}	4.69
	(PS) Adequacy	2.18	6.25*	5.13^{a}	4.33	3.64^{b}	4.56
Evaluative differentiation	Adequacy	3.13	7.59**	-0.67^{a}	1.20^{b}	1.09^{b}	0.38_{b}
	Performance	1.51	3.68*	-0.47^{b}	0.73^{a}	-0.27^{b}	-0.25^{b}

Table of Multivariate Fs	F	df	Wilks' Lamda
Evaluative	2.60*	10,39	.60
Evaluative differentiation	3.26*	3,47	.83

b. Significant Public x Identification interactions (on Evaluative differentiation - $F_{3,47} = 4.78$; Wilks' Lamda = 0.77, $p < .01$)

Univariate Items	MSe	F	High Pub HiIdent (n=15)	High Pub LoIdent (n=17)	Low Pub HiIdent (n=11)	Low Pub LoIdent (n=14)
Skill	3.22	7.78**	0.67^{b}	0.12	-1.10^{a}	0.86^{b}
Performance	1.51	11.68**	0.27^{b}	-1.27^{a}	-0.06^{b}	0.57^{b}

* $p < .05$
** $p < .01$

Means with different subscripts differ significantly (Newman-Keuls, $p < .05$).

Appendix G10

Manipulation checks

AWARENESS OF MANIPULATIONS EFFECTED IN EACH CONDITION

OBJECTS IN ROOM / ANSWER	Video Camera		Mirror		Neither	
	Yes	No	Yes	No	Yes	No
CONDITION						
Control	0	14	0	14	14	0
Mirror	0	15	14	1	1	14
VidControl	14	0	2	12	0	14
VidIngroup	14	0	0	14	0	14
VidOutgroup	16	0	2	14	0	14

NATURE OF PERCEIVED AUDIENCE IN THE VIDEO CONDITIONS

POTENTIAL AUDIENCE	Self		Ingroup		Outgroup		Forgotten	
	Yes	No	Yes	No	Yes	No	Yes	No
CONDITION								
VideoControl	7	7	1	13	3	11	1	13
VideoIngroup	2	12	9	5	1	13	4	10
VideoOutgroup	0	16	1	15	13	3	2	14

ANOVAS ON GROUP SIZE AND PERFORMANCE RANKING BY CONDITION

VARIABLE	MSe	F	Grand mean
Size of group	.61	.07	4.41
Rank of group performance	23.28	.14	8.86

Appendix G11

Inter-scale correlations

SCALE 1	SCALE 2	r	n
PRIVATE	PUBLIC	.33**	58
PRIVATE	SELF-ESTEEM	.27*	42
PUBLIC	SELF-ESTEEM	.19	42
PRIVATE	IDENTIFICATION	.19	57
PUBLIC	IDENTIFICATION	.27*	57
SELF-ESTEEM	IDENTIFICATION	.07	42

* $p < .05$
** $p < .01$