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Social influence in small groups: An interactive model of social identity formation

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The present paper tries to overcome the dualism of group-level vs. individualistic analysis of small group processes, by presenting a model of social identity formation that incorporates factors at both levels of analysis as well as their interaction. On the basis of prior theorising in the social identity tradition and a programme of research spanning several interactive group research paradigms, we suggest that within small groups a social identity can operate as a contextual given, which shapes the behaviour of individuals within the group, as much as the behaviour of individuals within the group can shape social identity. This proposal is supported by a programme of research into social influence within small interactive groups. This research explores deductive (top-down) processes through which existing identities influence group processes, but also shows a reciprocal influence through which intragroup discussion creates a sense of group identity in the apparent absence of any direct intergroup comparison (an inductive, or bottom-up, path). It is the interaction between these two forces that we believe is characteristic of the way in which small groups achieve a sense of social identity. Supporting this view, we describe research that suggests that processes of identity formation play a key role in decision making, productive collaboration, consensualisation, integrative negotiations, and the development of shared cognition.

> Under certain given circumstances [...] an agglomeration of men presents new characteristics very different from those of the individuals composing it. The sentiments of all the persons in the gathering take one and the same direction, and their conscious personality vanishes.
>
> (Le Bon, 1895/1995, p. 43)

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> It was not the 'collective mind' or the 'crowd impulse' which stormed the Bastille and guillotined scores of aristocrats. It was the individual citizen who did this [...] The individual in the crowd behaves just as he would behave alone, *only more so*. [...] All behavior phenomena of groups are reducible to mechanisms of individual behavior.
>
> (Allport, 1924, pp. 295 & 382)

> The [mechanical] solidarity that derives from similarities is at its *maximum* when the collective consciousness completely envelops our total consciousness [...] At that moment our individuality is zero [...] The situation is entirely different in the case of [organic] solidarity that brings about the division of labour. Whereas the other solidarity implies that individuals resemble one another, [organic solidarity] is only possible if each one of us has a sphere of action that is peculiarly our own, and consequently a personality. Thus the collective consciousness leaves uncovered a part of the individual consciousness, so that there may be established in it those special functions it cannot regulate. The more extensive this free area is, the stronger the cohesion that arises from this solidarity.
>
> (Durkheim, 1893/1984, pp. 84–85)

As illustrated by the first two quotes, there is a long tradition in psychology and sociology of attempting to reduce the social psychology of group behaviour to individual or social levels of analysis. Indeed, although the content and terminology of theorising has moved on, the tradition itself is alive and well today: Group processes tend to be analysed as a function of the characteristics of, and relations between, individual team members (Gaertner & Schopler, 1998; Moreland, Argote, & Krishnan, 1996), as a function of collective factors (Hogg, 1996), and sometimes as a battle between the two (Brewer, 1991). In these explanations individual and group are typically seen as representatives of antagonistic forces, as if human nature is *either* individualist and selfish *or* collectivist and cooperative, as if the group is *either* a cohesive and homogeneous entity *or* a poorly integrated and heterogeneous aggregate. The problem with these analyses is that groups can be heterogeneous yet united (think of recent protests against the 2003 war in Iraq, which made their mark precisely because of the broad political spectrum represented within them). Indeed, the collective typically benefits from heterogeneity and individual creativity, as is illustrated by the classic community, in which solidarity goes hand in hand with a successful division of labour.

The present paper argues that solidarity and heterogeneity are not incompatible, nor are homogeneity and disunity. In order to account for this phenomenon theoretically, we argue for a different perspective on how groups' sense of collective identity is constituted. We present a model of how (social) identity is formed, and illustrate the model with our research on small interactive groups. Empirically, our attempt is to

reunite research on group processes that focuses primarily on the individual within the group, with group research that focuses primarily on the social aggregate and self-categories. In order to gain a full understanding of groups, we believe that it is imperative to consider factors and processes that operate at several levels of abstraction, including those at individual levels as well as those that exist at the level of the team itself and at superordinate levels relating to the broader socio-structural context in which the team is located.

We review a body of research that examines these factors in small groups. The chapter focuses specifically on empirical studies of communication, negotiation, and decision-making. Through a focused review, it moves towards the conclusion that social identity—people's sense of themselves as group members—plays a key role not only in shaping collective products but also in shaping the forms of individuality that allow these to be achieved. Moreover, it is argued that identity-mediated communication lies at the heart of this process, largely as a result of its capacity, under specific conditions, to promote group consensualisation and socially shared cognition.

THE USEFULNESS AND USE OF SOCIAL IDENTITY CONCEPTS IN SMALL GROUPS

One of the notable developments in social psychological research and theory over the past two decades has been the breakthrough of the social identity approach into the mainstream of social psychological research. The social identity approach comprises social identity theory (SIT, Tajfel & Turner, 1979), self-categorisation theory (SCT: Turner, 1982, 1985; Turner, Hogg, Oakes, Reicher, & Wetherell, 1987), and the large body of empirical research that these have stimulated. Today, the influence of SIT and SCT can be felt in areas as diverse as stereotyping, prejudice, ingroup bias, minority influence, attitude theory, the psychology of the self, and organisational behaviour (e.g., Abrams & Hogg, 1998; Brown, 2000; Ellemers, Spears, & Doosje, 2002; Haslam, 2004; Haslam, van Knippenberg, Platow, & Ellemers, 2003c; Hewstone, Rubin, & Willis, 2002; Hogg & Terry, 2000; Turner, 1999; Turner & Onorato, 1999).

One of the original assumptions of the "redefinition of the group" in social identity terms was that the relevant principles identified by these theories would not be applicable only to the areas mentioned above, but also to a variety of processes in small groups (Tajfel, 1978; Tajfel & Turner, 1979; Turner et al., 1987). Indeed, SCT has made specific attempts to explain social influence within small groups (Turner, 1991), providing an ambitious agenda by proposing that it has the potential to account for social influence as much in small groups as in any other (inter)group setting.

However, it would appear that identity-related concepts have not had much impact on research into small group processes and practices. One reason for this is that social identity research, like social psychological research more generally (Haslam & McGarty, 2001), has tended to avoid studies that involve direct interaction between group members (see also Hogg, 1996). Dominant research paradigms have led researchers to focus on minimal groups or large-scale intergroup relations, and this has created the impression that the social identity approach has relatively little to offer to our understanding of what goes on inside the group (cf. Moreland et al., 1996). Indeed, the small group presents a particular challenge to social identity researchers because the dynamics of small groups compound several group properties that would appear to put SIT/SCT at a disadvantage. Specifically, small group research tends to involve interpersonal interaction and it tends to take place in an intragroup rather than an intergroup context.

These analytic problems may be illustrated by attempts to put SCT's explanation for the group polarisation effect to the test. As most readers will be aware, group polarisation is the phenomenon whereby groups come to hold more extreme positions after group discussion than prior to such exchange (Moscovici & Zavalloni, 1969). According to SCT, polarisation is the result of conformity to an inferred group norm, which accentuates the characteristic position of the group relative to the wider social context or relevant outgroup(s). Prior to 1995, evidence for this had been most forthcoming in studies in which the *intergroup* context was made salient (Hogg, Turner, & Davidson, 1990; Turner, Wetherell, & Hogg, 1989; A. Van Knippenberg & Wilke, 1988; D. Van Knippenberg, de Vries, & Van Knippenberg, 1990). Other studies have demonstrated that ingroup persuasive arguments are more likely to induce attitude change and perceptions of a polarised group norm than are outgroup persuasive arguments (Mackie, 1986; Mackie & Cooper, 1984; Wilder, 1990). However, none of these studies used a traditional group polarisation paradigm involving interaction within a small group of people *without* explicit reference to an outgroup. Given this neglect of the interactive small group in social identity research, it is perhaps not surprising that social identity processes are seen to be relevant primarily to intergroup phenomena, while their relevance to small group processes is understood to be limited (Moreland et al., 1996).

More recently, however, a body of research inspired by social identity and self-categorisation theories has started to accumulate which has been directly concerned with processes of social influence in small groups. It is this body of research that forms the main focus of the present review. This research is also complemented by research into leadership, group productivity and cohesion (e.g., Duck & Fielding, 2003; Haslam, 2004;

Haslam & Platow, 2001; Hogg, 1992; Hogg & Martin, 2003; Tindale, Meisenhelder, Dykema-Engblade, & Hogg, 2001; Turner, 1991; Worchel, Rothgerber, Day, Hart, & Butemeyer, 1998) with which this review is not primarily concerned, but which is certainly relevant to the arguments developed here.

One reason to focus this review on issues of social influence and social identity formation is that the coherent way in which the reviewed research speaks to this issue was not really apparent from the original papers. The original studies used small interactive groups as a vehicle for the study of a variety of topics: social identity processes in computer-mediated communication, stereotype formation, negotiations, and so on. Although all these papers were grounded in the same assumptions about social-identity-driven social influence (Turner, 1991), and although they all put these assumptions to the test, their conclusions were never channelled back to inform our understanding of small group processes (cf. earlier reviews of portions of this research, Haslam, Turner, Oakes, McGarty, & Reynolds, 1998a; Reicher, Spears, & Postmes, 1995). The purpose of this integration is twofold: to inform our understanding of processes of social influence in the small group, and to elaborate how and when interaction between members of a small group gives rise to social identity formation.

The chapter starts by briefly summarising relevant aspects of the social identity approach to social influence. We do not explicitly compare this approach to other approaches (see Turner, 1991, for this), but instead address ourselves to the specific question of how a social identity is formed in a small group. Our answer is framed in terms of an *interactive model of social identity formation*. This incorporates suggestions that (a) small groups can deduce a situated social identity from membership of a shared social category, and (b) social identity can be induced from intragroup communication. After outlining the model, empirical research that bears upon it is considered in more detail. Starting with research on consensualisation and the emergence of shared cognition in small groups, evidence is presented which suggests that pre-existing features of social identity and the wider (inter)group context can shape intragroup processes and subsequent group outcomes and actions. The chapter then goes on to consider research that has examined the process by which group members debate and negotiate their joint course of action, and thereby define a social identity through communication. This section reveals evidence of a reverse process by which intragroup communications are instrumental in the construction of a sense of shared identity. Finally, research is considered which provides evidence of the interaction between these two processes. The discussion focuses on limitations and alternative explanations, and draws out the central conclusions and implications of this research.

THE SOCIAL IDENTITY PERSPECTIVE ON SOCIAL INFLUENCE IN SMALL GROUPS

This is not the place for an extensive review of the social identity perspective and in particular self-categorisation theory's approach to social influence (see Turner, 1991). Nonetheless, it is helpful to identify some key principles upon which this approach is based. The overall goal of SCT's analysis is to provide a non-reductionistic theoretical account of the interaction between individual and social levels of influence (Turner & Oakes, 1986). In this sense and others, SCT has offered an explanation of social influence in groups which is firmly grounded in a tradition emphasising the functional dimension of group membership as a source of social information and validation (e.g., Asch, 1952; Festinger, 1950, 1954; Sherif, 1936; Wilder, 1977). SCT argues that social influence within groups is exerted to the extent that individuals categorise themselves as group members and perceive themselves (and others) in terms of the shared stereotype that defines the ingroup in contrast to relevant outgroups (a process that Turner, 1982, referred to as referent informational influence). As a consequence, group members may be influenced by group norms because they stereotype themselves in terms of group membership (i.e., normative influence stems from self-categorisation and identification with the group), but they may also act and think in line with the others who are seen as prototypical representatives of the group (i.e., a particular form of interpersonal influence, traceable to a perceived group prototype). Common to both influence paths is a proposal that social influence stems from depersonalisation of the self and other ingroup members in terms of a common social identity (Turner, 1982, 1985).

In order to explain social influence, the social identity approach postulates that the social is not external to the self, but is internalised through a social identity (Tajfel, 1981; Turner, 1982, 1985). Social identities are at the same time individual perceptions as well as socially shared and socially constructed conceptions of the defining features and boundaries of the group. This definition implies that, although social identities are represented in individual cognition, they are simultaneously properties of the social group itself because they depend on some degree of consensus among those who subscribe to this identity (and often on a wider intergroup context within which this identity is recognised to exist). One reason for this consensual nature of social identity is that group membership carries with it the expectation of *a common understanding*. For group members, the social identity construct provides a common interpretive framework that defines the group in relation to other groups and is embedded in a common perspective of group history and/or a shared sense of future direction. Classic work on the social identity concept has emphasised that it informs

group members about the *content* of stereotypes of ingroup and relevant outgroups, and delineates implicitly or explicitly what is normative and anti-normative. Social identity thus reflects and prescribes the group's consensus and its norms (comprising conventions, rules, and possible sanctions).

According to this definition, social identity informs us about what we are, what we think, and what we do (Abrams, Wetherell, Cochrane, Hogg, & Turner, 1990; Oakes, Haslam, & Turner, 1994; Reicher, 2001). Identity is thus about *being* in the sense that it helps us define and position the self within social structure, but it is also about *becoming* in the sense that social identity can mobilise us to engage in collective action in order to change a perceived social reality (Reicher, 2001).

According to SCT, social identity may exert a social influence on individual thought and action through the twin processes of social (or self-) categorisation and social identification. The categorisation of oneself as a member of a social group is in part dependent on the salience of categories (McGarty, 1999; Oakes, 1987; Oakes, Turner, & Haslam, 1991). Moreover, categorisation may also be imposed on a person—even if this person challenges the category membership or meanings attributed to it, as is the case in stigmatised groups (Branscombe, Ellemers, Spears, & Doosje, 1999a; Branscombe, Schmitt, & Harvey, 1999b). Social identification goes beyond the (cognitive) knowledge of being a group member: it describes the affective consequences of group membership. These related processes of categorisation and identification—the first tending to be more situationally and contextually determined, the latter more enduring and long term—enhance the likelihood that individuals will come to define themselves in terms of a particular social identity (Haslam, Postmes, & Ellemers, 2003b). If this is the case, then the norms, stereotypes, and other properties that are commonly ascribed to the social group become internalised; they become subjectively interchangeable with personal norms and stereotypes, influencing thought and guiding action.

This rough sketch of social identity and self-categorisation principles suggests how certain known and consensually shared properties of the group may influence individuals once they define themselves as group members. The precise nature of social influence thus depends on the content of the identity: that is, on the specific norms, conventions, ideology, stereotypes, or culture of the group in question (Turner et al., 1987). This content, importantly, is not a given or fixed property of the group. Although such self-stereotypes often appear to be relatively stable, research has shown that the content of identity depends on a variety of socio-structural factors including comparative context (Doosje, Haslam, Spears, Oakes, & Koomen, 1998; Haslam & Turner, 1992; Oakes et al., 1994) as well on inputs and communications that take place at an intragroup level (Drury & Reicher, 2000; Reicher, 1987; Turner, 1982).

TOWARDS AN INTERACTIVE MODEL OF SOCIAL IDENTITY FORMATION

As mentioned, the content of social identity is crucial to determining the form and direction of its social influence over group members. It is therefore a relevant question how identity is formed, and to this end we believe there is value in proposing a model (see Figure 1), to reflect and guide research in this field. On the one hand, as we elaborate below, there is a reasonably well-documented process by which group members infer social identity from the wider social context. This we refer to as the *deduction* of social identity. This can be seen as a top-down process of identity and norm formation on the basis of understandings gleaned from supra-ordinate social "realities" existing in the social structure (Postmes, Spears, Lee, & Novak, in press; Turner, 1982). On the other hand, there is a less often studied process by which the individual contributions of group members serve as input for the *induction* of (parts of) the group's social identity (Turner, 1982). This is seen, for example, in the way that "fashion statements" can develop into symbolic markers for social identity. This can be seen as a bottom-up process whereby the behaviour of individuals informs attributes of the collective.

Considering the deductive processes in Figure 1 first, one way in which the social identity content of a particular category or group is established is by means of comparison—implicit or explicit—with other social groups or categories. This is essentially a top-down mechanism through which ingroup identity is informed by the nature of a (superordinate) group-level comparison. The principle of meta-contrast specifies how this comparison affects the definition of ingroup and outgroup (Turner, 1985). The general idea is that the differences between groups are accentuated and differences

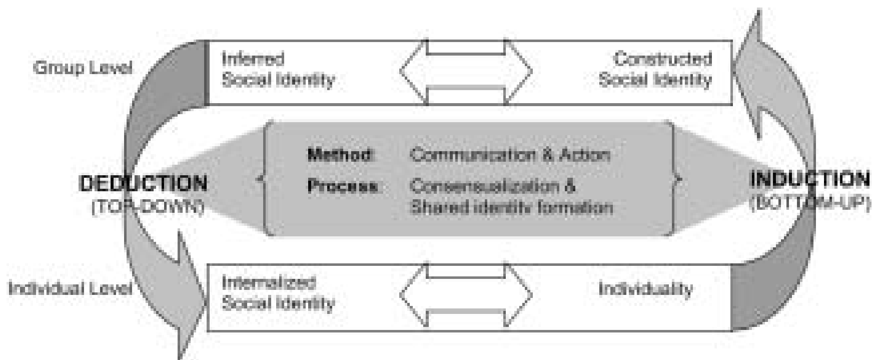

Figure 1. An interface model of social identity formation: Communication as the interface between individuality and social identity.

within groups are minimised, and that both of these processes contribute to the ingroup establishing a distinct and clear identity (McGarty & Penny, 1988; Tajfel, 1978). It should be added that groups have some leeway when making such comparisons. Although certain aspects of social reality are relatively undeniable in the sense of having real (material or social) consequences, with regard to the *interpretation* of a comparison outcome there is a flexibility of meaning of the comparison dimension and typically opportunity to choose among multiple available comparison dimensions (Ashforth & Kreiner, 1999; Eiser & Stroebe, 1972; Ellemers, 1993).

Another possible way in which social identity may be formed is through a bottom-up process of induction (Postmes et al., in press; Turner, 1982). It should be noted that this process has not really attracted much attention in social identity research until recently, opening the social identity approach to the critique that it presents a mechanistic analysis of social influence (as if social identity dictates what group members do, and individuality is irrelevant once social identity becomes salient, cf. Greenwood, 2004). In fact, there are numerous ways in which individuals can and do shape social identity and the content of group norms (see also Postmes & Jetten, in press). Group members may observe other group members' behaviours and induce from these more general properties of the social category or group. Moreover, group members may enter into explicit or implicit negotiations over different (competing) understandings of the realities facing them (Reicher & Hopkins, 2001). This is especially likely when group members are in a position to share their observations with each other (as in Sherif's, 1935, classic norm formation study). To the extent that norms are successfully induced, the formation of one aspect of social identity has been concluded. Similar processes also underpin the formation of other aspects of social identity—in particular, the formation of a shared perception of intergroup relations, as we elaborate below.

It is important to note that this inductive form of social influence is entirely consistent with SCT, but it need not derive from (implicit) comparisons with an outgroup. Moreover, it should be noted that the prime vehicle for the formation of group norms and identity in this process is interaction between individuals—one of the key defining features of small groups. Indeed, induction may partly explain why powerful forms of social influence can be observed in small groups in the lab: Even when these groups have a very brief and cursory history and limited prior experience of interacting together, they very readily develop norms, solidarity and notions of social identity (Postmes, Spears, Sakhel, & de Groot, 2001b).

To summarise, the present proposal builds on the self-categorisation account of social influence in small groups, which suggests that social influence is determined by the *content* of a group's social identity (comprising norms, a particular perception of socio-structural relations,

and the position of the own group, etc). If this social identity is salient, group members will be influenced to behave in a way that is consistent with the content of this identity and with group norms. A key tenet in all this is that *social regulation* and *social identification* are closely bound up with *social validation*. In other words, we turn to the group to help us deal with and understand the realities we face, we value the group for providing this understanding, and if we value groups they impose their understanding upon us. The relation between identification and validation is a reciprocal one. On the one hand, identification is a prerequisite for social validation (Turner, 1991). However, social validation, and the provision of a parsimonious and subjectively beneficial view of "the world" that this entails, can also enhance identification with the group that provides it (Postmes et al., in press).

Accepting these as premises for social influence in the group, we can formulate an Interactive Model of Social Identity Formation (see Figure 1). As noted above, within small groups there are two ways in which social identity may be construed—as a bottom-up and a top-down process. In the top-down process, the social identity of the ingroup is "given" by contextual factors. For example, a clear comparison outgroup may exist, and comparison with this may give meaning to the content of social identity and subsequently drive social influence within the group. Likewise, a group may already have clearly established norms that influence and inform its members' actions. The first series of studies reviewed here relate to these top-down processes of social influence. Later sections of the paper will consider the inductive path to social identity.

COMMUNICATION AND THE TOP-DOWN DEDUCTION OF GROUP IDENTITY

One of self-categorisation theory's starting points was to argue that social influence depends on shared perceptions of reality within the group. In small ad-hoc groups, without a long-standing history and clear future, such a shared reality is hard to create or draw upon, even when group members are encouraged to identify with the group or with a superordinate category. It is here that one of the key functions of communication in small groups lies: in the alignment of individual opinions, attitudes, and perspectives to generate consensual group perceptions. In a sense, communication enables members of the group to translate an abstract idea of "being in this together" into a concrete idea of what it is that "we" are doing and striving for. More specifically, it enables a group to develop a situated social identity from some abstract notion of togetherness, or from comparisons with relevant outgroups, or from other supra-individual commonalities and cues. Communication, then, is central to the capacity for a collection of

individuals to be transformed into a cohesive group with a capacity to act (Drury & Reicher, 2000; Postmes, 2003).

Consensualisation

One forum in which this idea can be tested, closely related to the concerns of the social identity approach, is that of (inter)group perceptions. Along these lines, Haslam and colleagues conducted a series of studies examining the way in which small interactive groups generate shared stereotypes of ingroup and outgroup (Haslam, 1997; Haslam, Oakes, Reynolds, & Turner, 1999; Haslam et al., 1998a, 1998b). The set-up in these experiments was quite simple, and all involved two phases. In the first phase, participants were presented with a list of traits, and marked all those they thought were most typical of a specific group (following Katz & Braly, 1933). The group in question was either an ingroup or a specific outgroup. This was followed by a second phase in which the same task was performed, but now the participants selected the most typical traits in small three- or four-person groups in which they discussed and decided their response. In this context, the degree to which there is consensus within and between groups about the traits that best describe a specific group is indicative of (an emergent) shared perspective that is the product of social validation.

The typical finding in these studies is a simple one: intragroup discussion greatly enhances stereotype consensus. Not only is there convergence of the pre-discussion attitudes, there is also polarisation in the sense of an extremitisation of group attitudes in a group *normative* direction. However, this consensualisation of attitudes is not the same as simple attitude polarisation, nor does it merely occur for stereotypes that people have of other groups. Importantly, consensualisation also influences people's perceptions of their *own* group, and (ingroup stereotypes being an important part of social identity) this can be seen as direct evidence that group discussions shape the content of social identity. For example, Haslam et al. (1999), divided 142 participants into 18 groups of 3 or 4 people, and asked them to indicate which traits in a Katz-Braly type checklist they thought were most typical of Australians. Before the group discussion, the percentage of participants who chose the five most commonly selected positive traits was 40%, and 14% agreed on the negative traits (i.e., some consensus existed from the onset). However, after group discussion, this level of consensus rose considerably, to 56% and 19% respectively.

Importantly, though, consensualisation is neither a uniform occurrence nor a natural consequence of interaction alone. Haslam et al. (1999) demonstrated that stereotype consensus was more pronounced when group members' social identity as Australians was made salient than when personal identity was salient. In this study, the Australian identity of

participants was made salient at the beginning of the experiment by asking them to list, among others, "three things that they and other Australians do well". When social identity was made salient through this simple but powerful manipulation, the aggregate measure of consensus rose from $M = .20$ before group discussion to $M = .43$ after discussion. This rise was considerably larger than when personal identity was made salient by asking participants similar questions about themselves as individuals. Although in this condition consensualisation was also considerable (rising from $M = .16$ to $M = .35$ after group discussion) the post-discussion consensus was significantly below that in the condition where social identity was salient (e.g., Haslam et al., 1998b, Study 2).

Compatible effects of social identity salience were also observed in additional studies (e.g., Haslam et al., 1998b, Study 3) which showed that consensualisation with regard to ingroup stereotypes did *not* occur in intragroup contexts. In one such study, Haslam and colleagues gave Katz-Braly checklists to 36 small groups who filled these in first as individuals, and then as a group. They were divided across three conditions. In one condition, group members were asked to fill in the checklist about their national ingroup (Australians). In a second condition, they filled in checklists for an outgroup (Americans). In a third condition, they were asked to select traits that were "typical of Australians in contrast to Americans". Prior research has shown that intergroup contexts enhance the salience of social identity (David & Turner, 1996), and therefore we can compare the conditions in which Australians were judged to identify effects of social identity salience.

Results confirmed that consensualisation was strong when the focus of discussions was the outgroup (consensus increasing from $M = .22$ to $M = .44$). Moreover, consensualisation was equally strong when the focus was the ingroup, but social identity was salient by making the intergroup comparison explicit (consensus increasing from $M = .22$ to $M = .41$). Importantly, however, in intragroup contexts where social identity was not salient, there was no significant consensualisation effect in judgements of the ingroup (consensus did rise, from $M = .20$ to $M = .28$, but this increase was not significant).

It is important to note that these effects are not only consistent with SCT and its predictions for social influence in small groups (Turner, 1991), but they also suggest that some alternative explanations, while being correct in their own right, provide a less than comprehensive account of the phenomena under investigation. Following the important distinction between informational and normative influence introduced by Deutsch and Gerard (1955) one could argue that consensualisation is the mere consequence of "normal" informational influence and the exchange of arguments (Burnstein, 1982; Stangor & Lange, 1993). Of course, informa-

tional influence does take place within groups, and the content of discussions is pivotal to explaining the identities and norms that emerge. However, the problem with informational influence as an explanation for stereotype consensualisation (and identity formation more generally) is that it cannot provide any systematic analysis for socio-structural factors that are implicated in producing content of particular kinds (i.e., at a group level, informational influence is more descriptive than explanatory). Specifically, informational influence does not account for the effects of social identity salience on the *content* of discussions, nor does it explain why such manipulations can predictably influence how much influence is exerted within the group. Indeed, informational influence does not really lend itself to understanding why people value consensus, or the conditions under which they would prefer to have a shared perspective or a more idiosyncratic one.

One could also argue that consensualisation reflects a process of compliance, where group members converge on a common opinion in response to group demands, in the hope of group rewards or for fear of group sanctions (Brown, 1965; Sanders & Baron, 1977). Again, these processes do occur in groups, but general notions of compliance do not describe all that matters or happens, and do not account for variation in behaviour across contexts. Moreover, these processes are not intrinsically antagonistic to social identity accounts of social influence (Barreto & Ellemers, 2000; Reicher et al., 1995; Spears, Postmes, Lea, & Wolbert, 2002). One limitation of normative influence accounts of consensualisation is that they ignore certain mechanisms of social influence within small groups (such as informational influence). Because of this, they cannot account for social influence when accountability pressures and social desirability can effectively be ruled out (e.g., when group members remain entirely anonymous). A larger problem is that normative influence explanations do not explicitly take into account the relation of the small group to the wider social context of intergroup relations and socio-structural restraints, and hence cannot readily explain the effects of that wider social context on intragroup processes (as in the present research, where the salience of Australian identity was varied, but not the level of cohesiveness of the small interactive group itself).

In sum, the findings discussed so far indicate that group discussion can give rise to consensus about definitions of the ingroup, and that consensus emerges in a similar way for ingroup and outgroup stereotypes. Importantly, the fact that this process is particularly pronounced when social identity is salient illustrates that in order for group interaction to inform the content of identity, it needs to be premised on shared social group membership in the first place. Together, these results also point to the potential for internalised group memberships to structure and regulate cognition. Indeed, the capacity

for cognition to be shared is only realised to the extent that a shared social identity is salient.

In sum, research on consensualisation effectively shows that the social construction of the content of ingroup identity is affected by exactly those variables that SCT argues should affect it. The nature of the intergroup comparison invoked, the salience of a superordinate social identity, and other factors besides, all serve to stimulate and direct consensualisation within small groups, both with regard to definitions of the ingroup and with regard to stereotypes of the outgroup.

Moreover, that this process is not merely one of anchoring judgements and scale effects can be gleaned from recent research which shows that these very same consensualisation processes also impact on behaviours towards relevant outgroups. In this vein, Stott and Drury (2004) have demonstrated the powerful impact of consensualisation in a different paradigm, in which participants were placed in a low-status group with different structural opportunities for social mobility into the high-status group (Reynolds, Oakes, Haslam, Nolan, & Dolnik, 2000; Wright, Taylor, & Moghaddam, 1990). In different conditions group boundaries were closed (impermeable), open, or token group members were allowed to join the high-status group (following Wright et al., 1990). Using the same two-phase set-up as in Haslam et al.'s (1998) research, Stott and Drury showed that consensualisation not only significantly increased stereotype consensus, but that it also increased collective protest against unfair treatment. There was also some indication that consensualisation contributed to the form of collective action taken. In the most unjust condition in which group boundaries were closed, the level of consensus about the ingroup stereotype was strongly predictive of collective action. In this way there was direct evidence that consensualisation about ingroup identity had an impact on behavioural strategies.

This finding shows that consensualisation is not merely about defining who "we" are, but about defining a social identity which guides action, and in that sense helps us decide and realise who we want to be and where we want to be in relation to relevant outgroups. Intragroup interaction can thereby transform a situation in which there are two functionally distinct groupings into one with a full-blown intergroup dynamic (Reicher, Hopkins, & Condor, 1997).

Valuation of information

The above findings suggest that social influence is exerted within small groups in ways that are consistent with self-categorisation principles—at least with regard to groups' consensualisation of ingroup and outgroup perceptions. However, they stop short of establishing that these small group processes of identity-based social influence also occur in the complete

absence of an outgroup, and with regard to topics that would on the surface appear to be irrelevant to intergroup comparisons. One might therefore argue that they do not provide the most stringent test of social identity formation in small interactive groups. Indeed, being concerned primarily with perceptions of groups and actions towards outgroups, these studies are somewhat removed from the conventional concerns of small group researchers and practitioners (e.g., with issues of productivity and decision making, Kerr & Tindale, 2004). Yet, from self-categorisation theory's predictions regarding group polarisation (Wetherell, 1987) it can be inferred that similar effects should emerge in such settings to the extent that a clearly defined identity exists, along with a clear normative framework.

Postmes, Spears, and Cihangir (2001a) conducted two studies to investigate these self-categorisation processes in a decision-making context. The object was to examine whether the content of group norms would influence the extent to which group decisions would be reached and information valued. These processes were examined in a study that used Stasser's biased sampling paradigm (Stasser & Titus, 1985). In this, group members all share some pieces of information that are relevant to reaching their decision, but each of them also has different information that is unique and not shared by the other members. Prior research has established that people are generally less likely to discuss the unshared information than that which is shared. Thus, despite the fact that groups have a huge potential to obtain better outcomes than individuals, they typically fail to be more effective: their members do not pool critical information, and the quality of decisions is low (see Wittenbaum & Stasser, 1996, for a review).

Research of this form has shown that groups dwell on consensually shared information at the expense of individually held unshared information. From a self-categorisation perspective, this may be less surprising than it seems, and quite a functional characteristic of group performance (Haslam, 2004, pp. 134–135; Klein, Jacobs, Gemoets, Licata, & Lambert, 2003; Postmes et al., 2001a). After all, social validation is central to establishing the value of information, and in this respect shared information (consensually held by all) is more informative than that which is not shared and therefore has greater potential to influence decision outcomes. For the group, then, the attainment of consensus is indicative of the value of the information that comes to the table. However, the degree to which this consensus is valued is itself subject to social norms within the group. Thus, certain groups strive to maintain consensus at all costs, whereas others are formed on the basis that each member is expected to make a unique and distinct contribution.

Postmes and colleagues (2001a, Study 1) examined this proposal. In a prior unrelated task, group norms were manipulated. The content of these norms was either to value consensus or (in a different condition) to value

critical independent thought. The way in which this was manipulated was relatively straightforward. All groups collaborated on a prior task that was enjoyable and engaging, and which fostered the formation of a cohesive, highly identified team. The nature of these prior tasks was quite different across conditions. In the consensus norm condition, team members made a poster together, and they were engaged in a task during which disagreements and individual actions were kept to a minimum, and actions were all subservient to a shared outcome and product. In the critical norm condition, they were asked to debate an issue that pilot data had shown was one with which they fervently disagreed. Here the group product was precisely the expression of numerous critical and dissenting voices, and although participants did concur that they all disagreed about the issue, they generally tried to outdo each other in finding reasons why.

In a subsequent group decision-making task, these groups were faced with a choice between three candidates for a university lectureship. The information they were given was rigged so that certain pieces of information were unshared whereas others were shared during the first phase of the decision-making process, at which time group members individually made up their mind about the strengths and weaknesses of the candidates. During the second phase, participants were provided with all the information about candidates, and were asked to reconsider their decision as a social group, in an online discussion during which group members' individual identity was concealed. Results (first two columns of Table 1) showed that during discussion as a social group, the shared information was valued more highly than the unshared information, but only in those groups in which a norm for consensus was in operation. In contrast, when there was a norm to value critical and independent thought, the unshared information was valued relatively more strongly. Moreover, the value placed on particular types of information was strongly predictive of the quality of group decisions, such that decisions were better in the critical norm condition. In this condition, groups most consistently preferred the objectively better candidate over the one that initially appeared to be better on the basis of shared information. In the critical norm condition, groups made the objectively correct decisions 67% of the time, compared to only 22% of the time in the consensus norm condition (see also Galinsky & Kray, 2004, for related findings).

In a further study (Postmes et al., 2001a, Study 2) we compared these results to a control condition in which no group interaction took place. This control condition was similar to the experimental condition in all respects, except that the phase 2 decision was made by individuals in isolation. If the group norm had "primed" particular decision-making styles, it would also have had an impact on individual decisions. However, the group norm did not exert an effect on the phase 2 decisions. Thus, as can be seen in the middle columns in Table 1, the norm did not affect the value attributed to

TABLE 1
Impact of norms and decision condition on decision characteristics

Decision condition	*Social group*		*Individual*		*Individuated group*	
Norm condition	*Consensus n = 12*	*Critical n = 12*	*Consensus n = 12*	*Critical n = 12*	*Consensus n = 8*	*Critical n = 8*
Value of *shared* attributes	5.45	5.06	5.28	5.31	5.36	5.25
	.31	*.47*	*.26*	*.22*	*.32*	*.42*
Value of *unshared* attributes	4.92	5.06	5.09	5.13	5.16	4.86
	.33	*.54*	*.20*	*.26*	*.19*	*.68*
Percentage correct decisions	22%	67%	65%	60%	63%	26%

Values of attributes range from 1 to 7, with higher scores reflecting more perceived value and suitability.

shared and unshared information, nor did it affect the percentages of correct decisions. After the individual reconsideration, participants in the consensus norm condition decided on the best candidate 65% of the time, and participants in the critical norm condition made 60% correct decisions. This effect demonstrates that when group members have to work on their own, the content of group norms no longer influences group members' behaviour. This establishes that we are dealing with a group effect, and with group-based social influence (see also Liljenquist, Galinsky, & Kray, 2004).

Moreover, we believe that through their decisions, groups expressed a valued aspect of their social identity. This is best illustrated by comparing the findings in the social group and individual control condition to the results of an additional study reported elsewhere (Postmes, Spears, & Lea, 1998, p. 702). In this study, the exact same procedure was followed as in the social group condition, but phase 2 groups discussed the profiles in a different fashion. Using a procedure developed through research on the social identity model of deindividuation effects (e.g., Lea & Spears, 1991; Reicher et al., 1995; Spears & Lea, 1992), group members were individuated in the group discussions. To achieve this, they took part in a group discussion online, but their individual identity was accentuated in the discussion by letting each participant's contribution be identified by their picture and first name. Research has shown that this procedure enhances the salience of individual identity over social identity (Lea, Spears, & de Groot, 2001; Sassenberg & Postmes, 2002).

As can be seen in the last two columns of Table 1, in the condition where group members were individuated, the group norm had no effect on group decisions. In fact, there was a tendency for group decisions to go against the manipulated group norm (an effect that is not uncommon, see e.g., Postmes, Spears, Sakhel, & De Groot, 2001b). In the critical norm condition, groups made the right decisions only 26% of the time, compared to 63% correct decisions in the consensus norm condition.

Again, this research suggests that social influence within small groups operates along lines predicted by self-categorisation theory. Previously established group norms are instrumental in determining the nature of social influence exerted within the group. Whatever the important interpersonal or intragroup mechanisms involved in the exertion of this social influence, it is not the dynamics of interpersonal interaction, or group composition or personality that account for the effects of social identity salience or, for that matter, the effects of wider intergroup context. Instead, the results suggest that in order to explain the strength of influence and its direction, we need to consider intergroup context and group norms (Turner, 1991). It is important to note, too, that social influence is not automatic, as group norms do not influence individuals (a) outside the context of the group (Postmes et al., 2001a), or (b) in all group contexts (Postmes et al., 1998).

The types of social influence documented in the above studies (under the headings consensualisation and valuation of information) resonate with recent notions of "shared cognition". Going back to work of Le Bon (1895/1995) and McDougall (1921) on the group mind, small group research from a variety of perspectives has more recently suggested that groups can develop convergent cognitions (e.g., Cannon-Bowers, Salas, & Converse, 1993; Ickes & Gonzalez, 1994; Klimoski & Mohammed, 1994; Larson & Christensen, 1993; Levine & Resnick, 1993; Liang, Moreland, & Argote, 1995; Wegner, 1987; Weick & Roberts, 1993). Within this literature, shared cognition is typically differentiated from transactive memory. The former requires a similar understanding of a given reality, the latter requires awareness of each group member's distinctive capacities and cognitions. Although some have argued that transactive memory does not require solidarity or unity within the group (Wegner, 1987), it could also be argued that having a shared ingroup identity is a prerequisite for the expression and development of individuality itself.

Nevertheless, the argument that follows should apply to shared cognition (i.e., parallel worldviews) more than to transactive memory systems. Such shared interpretive frameworks are argued to have great potential for groups, as they are associated with a variety of beneficial outcomes including the capacity for transactive memory and complex forms of intersubjectivity (see e.g., Tindale et al., 2001, for a review). The present research suggests that identification and identity-related forms of social

influence are strongly implicated in the formation of these shared perceptions of reality.

Again, the key to this convergence is communication. The present research shows that communication (i.e., the simple exchange of viewpoints on topics that are relevant to group concerns) has the capacity to transform a prospective identity into an operational identity. By this we mean that in small groups social identity salience typically needs to be complemented by the expression of other social identity processes in order for collective action to occur in pursuit of a common goal. What is needed, we suggest, is the translation of a shared identity from an abstract to a concrete form that matches the concrete requirements of the task at hand (i.e., communication ensures that category and local group characteristics ‘‘fit’’, cf. Waldzus & Schubert, 2000). Communication provides the means of establishing how abstract characteristics of the ingroup (e.g., valuing critical and independent thought) can be translated into a concrete situational norm that applies to actions within a specific context (e.g., group members discussing unshared information). This process of deduction through communication provides an insight into the way in which the reverse process of bottom-up construction of social identity is also possible (see Figure 1).

COMMUNICATION AND THE CONSTRUCTION OF IDENTITY

Communication in small groups can serve to construct norms and identity. The key principle here is that groups may infer a social identity from observing or constructing a certain underlying similarity within the group on a dimension that helps the group to differentiate itself from other groups, or which is relevant to its achievement of particular goals. This inevitably means that a collection of individuals may actively construct a norm or shared viewpoint in contexts in which an intergroup dynamic is not obvious or given from the start.

As displayed in Figure 1, in intragroup contexts it is ultimately the expression of individuality within the group that is the foundation for a possible convergence of minds. The term individuality is used here to signify that self-expressions by individual group members can be informed by aspects of personal identity *as well as* social identity. The classic example of this phenomenon is Sherif's (1935) study on norm formation where, over time, individual group members converged on a shared view about the distance that a point of light appeared to move in a darkened room (the autokinetic effect). One obvious reason for the strong social influence in this study was that participants were under the impression that they should share the same observations of what they believed to be physical reality. Therefore, there was an implicit understanding that perceptions *ought* to

be identical (Turner, 1985), and in that sense norm formation was inevitable. However, groups readily engage in similar processes of norm formation even in the absence of any obvious needs or demands to do this.

Bottom-up formation of social norms

In one study designed to explore these ideas, we studied the communications of students who participated in a statistics course (Postmes, Spears, & Lea, 2000). In addition to their regular teaching, they could participate in an online statistics tutorial, which allowed them to send emails to the course instructor. As it transpired, participants also used this facility to send each other emails, and these messages were subsequently analysed by us. As the data were collected in 1993, when access to email was limited, we could analyse the content of messages in order to study how social norms and conventions emerged in the use of a new communication medium. Using a network analytic technique, we identified different groups of students in the sample as a whole. Results showed that over time each group converged in both the content (i.e., their use of humour) and stylistic form (i.e., punctuation and capitalisation) of their messages, in such a way that (a) intragroup communication produced attributes that were distinctive to the group and (b) intragroup heterogeneity diminished. Moreover, groups accentuated those content characteristics that distinguished between them, effectively displaying a form of group polarisation that served to express and display a particular identity for the group.

In this way, one group in particular developed an affinity for witty and rude exchanges, culminating in a "flame war" during which group members exchanged scores of insults for a number of days, apparently as a pleasant pastime. Coding the degree to which message content was prototypical and distinctive across a number of such message characteristics yielded a prototypicality score for each message. Analysing these scores across groups revealed that there was a small but consistent effect such that messages within groups became more prototypical in content over time ($\beta = .15$ across groups, $p < .001$). Interestingly, the particular group styles that developed over time did not predict how group members interacted with others outside the group. In fact, quite the opposite was true: group norms only governed interaction within the group, whereas communication that occurred outside group boundaries was *atypical* by ingroup standards.

These findings are consistent with communication accommodation theory in so far as it draws on the social identity approach to account for patterns of convergence and divergence in communication (Giles, Coupland, & Coupland, 1991; Giles & Powesland, 1975). However, they also show that communication is actively used to define group conventions and norms, even in the absence of a clearly defined intergroup context. Indeed, along the

lines of Katz and Kahn's (1966) notion of a coding category, where intragroup communication takes place over an extended period, an *ingroup code* can develop which may be reflected in technical jargon, recognised ways of expressing particular ideas, as well as in pet-phrases, in-jokes, slang, and argot (e.g., see Zurcher, 1965).

Norm formation and social identity

These processes of norm formation should be consequential for group actions and group decisions. Moreover, it can be inferred from the study outlined above (and indeed from the classic research by Sherif, 1935) that norm formation can occur through recognition of similarities in the characteristics of individual group members partaking in discussion. Indeed, this inference was borne out in two experiments which controlled for individual characteristics prior to a group discussion (Postmes et al., 2001b). The purpose of these experiments was to prime preferences in individual group members prior to discussion, and then to observe whether these primed preferences would develop into full-blown group norms in a subsequent group polarisation task. Importantly, we expected these norms to become particularly pronounced when individual differences within the group were obscured (and group members were depersonalised) as here the commonality of members of the group would be more salient (Reicher et al., 1995; Spears & Lea, 1992).

In these studies, prior to group interaction each group member was primed with a scrambled sentence test containing either prosocial traits and verbs, or efficiency-related traits and verbs. In addition, an orthogonal manipulation either individuated group members or depersonalised them by rendering individual differences invisible. The effect of this manipulation of individuation was to draw the attention of group members away from any underlying similarities within the group. It was predicted that the prime would lead group members to be inclined to display a particular kind of behaviour at the start of the group discussion. In the depersonalised conditions (but not the individuated ones), we expected that these similarities would be picked up over the course of group discussion and developed into norms constructed from the interaction.

Results confirmed the predictions, and showed that only in the depersonalised groups did the prime develop into a strong norm for efficiency or prosocial concerns. Results in that condition confirmed that individuals primed with prosocial traits ended up making more prosocial decisions, whereas those primed with efficiency-oriented traits ended up making more efficiency-centred decisions. When participants were individuated, however, individual differences assumed a more central role in the intragroup process, and the intragroup similarities induced by the prime had

no effect on norm development or subsequent decisions (Postmes et al., 2001b, Study 1).

A further study provided direct evidence of the process that underpinned these effects (Postmes et al., 2001b, Study 2). In this study, participants within the same group received different primes: half the group's members were primed with efficiency, the other half received a neutral prime. The purpose of this manipulation was to show that those group members who were not primed would, over time, be influenced by the communication in the group and become involved in the construction of a group-based normative position on the decision task. Indeed, during the group discussion those group members who were neutrally primed were socially influenced by those who were primed, but only when group members were depersonalised. Thus, analysis of the content of the interaction showed that over time the non-primed group members adopted the more extreme position of the primed group members.

This finding provides direct evidence of a process of normative social influence at work. This was corroborated by self-reports which showed that, in the depersonalised groups, participants perceived there to be a more extreme group *norm*. As for the role of identity in the underlying process, this was not just borne out by the effect of individuation of persons within the group, but corroborated by a mediational analysis in which group identification was shown to account for the effects of individuation on normative behaviour. As displayed in Figure 2, the mediation was complete. Thus, group members were less strongly influenced because they identified less with their group when individual differences were made salient (see Lee, 2004, for similar findings).

Together, these effects provide a direct insight into the processes at work in these studies: It is the communication between group members that translates individual tendencies (primed, in this case) into socially shared cognitions. However, the results also show that these socially shared ideas do not operate as *internalised* group norms unless group members subscribe to some underlying similarity or a shared identity (in the sense of not individuating group members). This is important, because it suggests that for shared perceptions to function as group norms in a non-coercive sense, they need to be incorporated into *social identity*. Indeed, returning to Sherif's (1935) classic studies, we would argue that the implicit factor which was responsible for the effect in that classic study was the shared group membership upon which trust in other individuals' judgements was predicated.

An important point made by this research is that all these effects occur through interaction within the group. In the studies in which norms were primed, for example, we could track the emergence of norms over time through analysis of the content of communications (Postmes et al., 2001b,

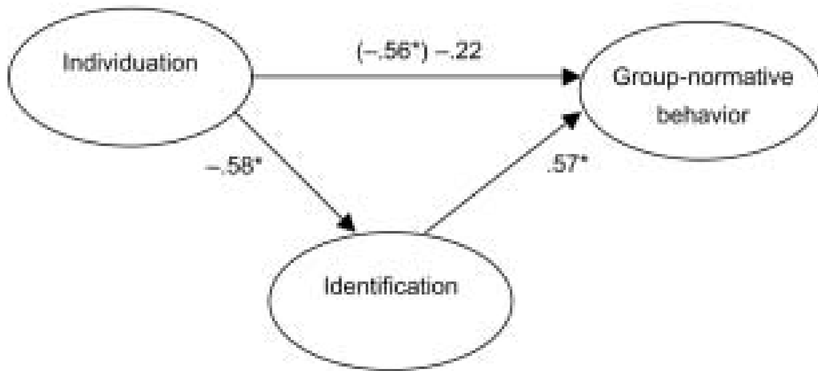

Figure 2. Identification mediates the effect of individuation condition on the degree of normative behaviour.

Study 2). What is critical here is that communication (the exchange of arguments and viewpoints about the issue at stake) allowed for the induction of group norms even in a standard group decision-making setting, without any obvious explicit intergroup condition. The only thing we did to facilitate these non-coercive processes of social influence was to obscure intragroup differences (ironically the very same factor which, according to Deutsch & Gerard, 1955, should obstruct normative *coercive* influence).

From norm formation to identity formation

The alignment of individual cognitions over time has also been examined in a series of studies on integrative negotiations within groups (Swaab, Postmes, Neijens, Kiers, & Dumay, 2002). This research was initially less concerned with group norms, but focused on the *content* of cognitions among members of a multi-party negotiation in order to examine "shared cognition" in its own right.

As mentioned above, shared cognition refers to knowledge structures that exist at a supra-individual level and which may, for example, relate to aspects of the group task. The purpose of our very first study in this area was simply to enhance shared cognition among negotiating parties, assuming that this would facilitate negotiation settlement (cf. Pruitt & Carnevale, 1993). A simple manipulation of visualisation of feedback was used to communicate a similar perspective on the negotiation at hand to the parties involved in it. The manipulation consisted of presenting the group of negotiators with uniform information about the negotiation task. In the control condition, essentially the same information was provided to each individual negotiator, but it was not uniformly presented to them as a

group. This manipulation had the predicted effect on shared cognition: perceptions of reality (measured through a series of questions about participants' understanding of the negotiation task) converged more when information was presented uniformly. However, this change in cognitions was accompanied by several less obvious changes in social relations among group members. Of particular interest here is evidence that enhancing shared cognition had the *direct effects* of increasing cohesiveness and identification, as well as the perceived entitativity of negotiators as a group.

Subsequent mediational analyses showed that the effect of visualisation on the social outcomes (entitativity and cohesiveness) could be attributed to the cognitive consequences of visualising feedback. Thus, it was the emergence of a similar perspective that initiated a social change towards greater unity. In that sense, the research by Swaab et al. (2002) provides further confirmation of the point that the development of a shared perspective and viewpoint is part-and-parcel of the formation of a group identity, even when that shared cognition does not directly concern ingroup identity or outgroup stereotypes.

In sum, the research reviewed in this section on bottom-up induction of identity supports the view that groups have a tendency to converge over time, and that the position they converge upon has normative consequences. Moreover, we have shown that these processes of norm formation are intimately related to issues of social identity. Factors that enhance group salience (direct manipulations of salience, intergroup comparisons, diminished identifiability of individuals) amplify convergence and its consequences, such that social identity salience leads to stronger social influence and norm formation. On the other hand, personal identity salience is associated with less social identity-based social influence and even with reactance against the group norm. Moreover, normative influence itself also depends on the level of group identification as one (imperfect) correlate of identity salience.

At the same time, however, the research we have reviewed shows that the existence of a salient social identity is also an emergent property of the group itself as it works through a particular task. Importantly, this process of identity formation is not dependent on any intergroup processes or salient outgroups, but may well happen merely on the basis of collective activity oriented towards a shared goal (Wegge & Haslam, 2003). In sum, groups are able to construct a social identity through a bottom-up process, as well as deduce it in top-down fashion from the wider intergroup context. Thus, it appears that groups undergo a reciprocal interaction between forms of social influence, which can ultimately be traced to individual as well as group-level factors. The final series of studies that we will discuss was aimed at shedding further light on this process of reciprocal interaction.

THE INTERACTION BETWEEN INDIVIDUAL AND GROUP

The way in which shared identity is both constructed from group processes, and provides the basis for it, is perhaps most clearly illustrated with reference to a series of recent studies that focused directly on group negotiations and the formation of shared cognition (Swaab, Postmes, Spears, Van Beest, & Neijens, 2005). The object of this research was to examine precursors to the formation of shared cognition. As before, the experiments studied the performance of participants in an integrative negotiation task in which each had a different role (Weingart, Bennett, & Brett, 1993). In this task, more points are allocated the closer a group is to achieving a pre-determined goal. The performance of negotiators as a group is simply the sum total of these points, with higher scores reflecting better integration. Based on prior research into the determinants of transactive memory, it appears that two important determinants of performance are (a) prior experience in the group, and (b) the relevance of that experience to subsequent tasks (Moreland et al., 1996).

The first experiment in this programme independently manipulated two factors, prior experience (working in the group or as individuals) and the content of the prior task (related to subsequent negotiation or unrelated). Thus, group members either discussed certain parameters of a group task as a team, or they contemplated the same issue in isolation. The parameters of the group task that they considered were either closely related to the subsequent negotiation (i.e., relevant) or were about a different negotiation altogether (i.e., not directly relevant). Results showed that the performance was good (in terms of total points scored for their integrative solution) in all conditions except one. The condition with poorest performance was the condition in which the prior task was irrelevant, and prior experience was as individuals. In all other conditions groups performed very well, and there was strong evidence that the quality of performance was related to the emergence of shared cognition and the development of a (superordinate) sense of group identity, both of which went hand in hand.

Closer inspection revealed interesting patterns in these findings. Unsurprisingly, the condition in which people had experience working in their group on a negotiation-relevant task served as good preparation for the subsequent negotiation task—performance in terms of the total number of points scored was high. In this condition, shared cognition and social identity were very highly correlated. However, when participants worked on the negotiation-relevant task in isolation, and hence had no experience of working together, the performance was equally good. This implies that performance can improve due to the development of shared cognition in Phase 1, when group members individually consider the same task-relevant

subject. Interestingly, though, this could be shown to lead to the development of shared identity in Phase 2. Finally, group performance was also good in the condition where group members had prior experience collaborating with each other, but on an unrelated and less relevant subject. Here, there was evidence that a sense of shared identity emerged in Phase 1, which then led to the formation of shared cognition in Phase 2.

The reciprocal relation between shared cognition and shared identity implied in these results was fleshed out in two follow-up studies. One subsequent experiment confirmed that the consideration of a similar issue is indeed sufficient for the emergence of shared cognition, providing that these similarities emerge through communication between group members (Swaab et al., 2005, Study 2). In this study, the participants wrote down their thoughts on certain parameters of the group negotiation task (importantly, no one wrote about their own objectives or desired outcomes). The manipulation was simply to circulate their ideas (shared cognition) or not (no shared cognition). Thus, by means of controlled communication we manipulated the emergence of shared cognition. Results showed that not only did shared cognition improve performance on the negotiating task, but it also helped to foster a strong sense of superordinate group identification. Mediational analyses confirmed that identification fully mediated and accounted for the effect of shared cognition on negotiation outcomes.

In a third study we demonstrated the reverse process of identification impacting on shared cognition and performance. Indeed, this follow-up research established that if groups developed a sense of shared identity in a prior task, they performed much better in terms of negotiation outcomes (Swaab et al., 2005, Study 4). In this study we simply asked groups to collaborate on a prior task that was completely unrelated to the negotiation. Those groups who came out of this initial task with higher levels of superordinate group identification also developed much more shared cognition on the subsequent negotiation task, and had better negotiation outcomes. Mediational analysis was once again consistent with our model, this time showing the *reverse* causal process, with the effect of identification on performance being fully mediated by shared cognition.

These findings are at odds with the suggestion of Moreland and colleagues (1996) that identification is not the basis for the development of transactive memory systems. The reason for this discrepancy, we believe, lies in the nature of transactive memory as a collective awareness of the *differences* within the group. Rather than identification being a precursor to the emergence of intragroup differentiation, identification is more likely to promote unity of thought and action. That being said, it is quite possible that identification could be a *consequence* of diversity and pluralism within the group (e.g., Haslam, Eggins, & Reynolds, 2003a).

Considering the effects of these three studies together, a picture emerges wherein productive negotiation settlements are predicted by socially shared cognition, as well as by a sense of superordinate identity. It seems reasonable to speculate, however, that the influence of these two variables could be due to a third factor, namely the interpersonal attraction between group members. On the one hand, interdependence and attraction are argued to play an important part in the emergence of a sense of unity in groups (Gaertner & Schopler, 1998; Lickel, Hamilton, & Sherman, 2001). On the other hand, interdependence and interpersonal attraction play an important role in setting the tone of negotiations and influencing the social climate (De Dreu, 1995; De Dreu & Carnevale, 2003). On this basis, it could be argued that interpersonal attraction is the underlying reason why shared identity and shared cognition have such a strong effect on negotiation outcomes.

Fortunately, interpersonal attraction was measured in each of the above studies, so we were able to analyse the interrelationships among these variables and rule out this alternative explanation for our effects. For the purposes of the present paper, we pooled the results of the three studies in one large meta-analysis of the $N = 122$ groups involved in these studies. We then performed a structural equations analysis of different models in which interpersonal attraction, shared cognition, and superordinate identity were used to predict negotiation outcomes.

The key model that was tested is presented in Figure 3. In this model, a latent variable of "social identity" was constructed which, consistent with findings described above, reflected the closely related variables of (a) identification with the superordinate group and (b) shared cognition. This latent variable was constructed to do justice to the reciprocal interaction (demonstrated in research in which one or the other was manipulated) between these two variables. Interpersonal attraction within the group and this latent variable of social identity were modelled as two separate but correlated predictors of the negotiation outcome. The results were clear. As displayed in Figure 3, the model fitted the data well. This model accounted for 41% of the variance in negotiation outcomes. Results show that whereas social identity was a strong predictor of negotiation outcomes ($\gamma = .70$, $p < .001$), interpersonal attraction was not ($\gamma = -.09$, *ns*). This model was also compared to various alternative models, none of which fitted the data as well. For example, attraction cannot be included in the latent variable of social identity, and a model specifying causality (attraction feeding social identity, leading to better negotiation outcomes) similarly fails to fit the data well.

Individuality and its relation to social identity

Putting the effects documented in the two prior sections together, it appears that the deductive and inductive processes by which social identity is

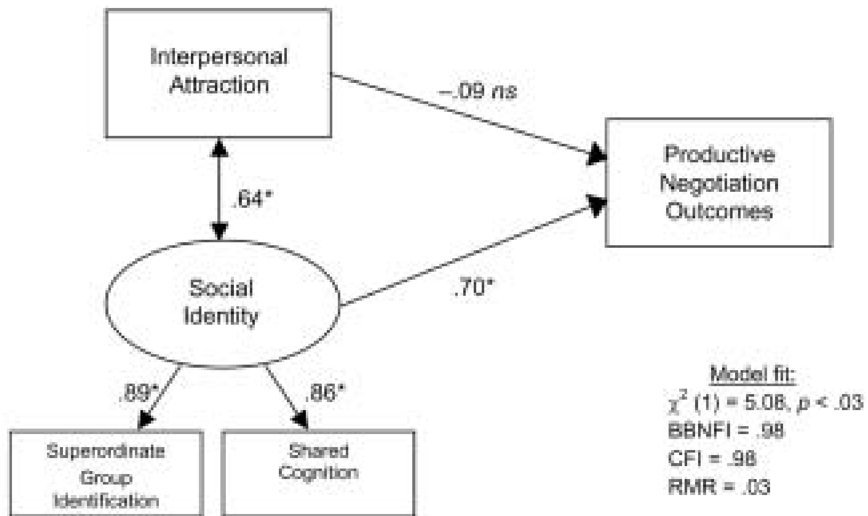

Figure 3. A structural equation model of the relationship between interpersonal attraction, social identity, and negotiation outcomes, * $p < .001$.

simultaneously structured and expressed are really so closely related that they are both likely to be occurring—at least to some extent—in all small groups. For instance, shared cognition can be both a precursor to the formation of a shared identity as well as a consequence of it. Interpersonal attraction (as a proxy for the role of individuality within the group) is certainly related to and involved in these processes, but it appears not to be the key to explaining why social identity plays such a central role in these small group processes, nor why social identity has consequences for group performance.

Nonetheless, the paradoxical implication of this research is that communication may still provide the foundation for a shared identity in interactions between parties to a negotiation with diametrically opposed objectives and interests. Of course, the fact that these were all relatively contrived lab studies may have helped participants to overcome their differences. At the same time, however, the idea that heterogeneity can provide a foundation for the emergence of a collective identity is not perhaps as far-fetched as it may initially seem, nor is it inconsistent with SCT (in contrast to the argument of Swann, Kwan, Polzer, & Milton, 2003). Indeed, in two of the studies mentioned above, a group norm of critical independence was successfully created, without this negatively affecting group cohesiveness and identification (Postmes et al., 2001a). This suggests that, depending on the *content* of social identity and group norms,

heterogeneity may be permissible (an asset, even) in some group contexts (Jetten, Postmes, & McAuliffe, 2002; van Knippenberg & Haslam, 2003).

Very much the same suggestion was made by Durkheim (1893/1984) in his distinction between mechanical and organic solidarity (see also Haslam, 2004). Mechanical solidarity, he argued, arises out of the recognition of similarity: the collective takes precedence over individual personality. Organic solidarity, however, arises out of differentiation within groups. In organic groups, the different skills and capacities that individuals contribute define the collective. In such groups, according to Durkheim, a sense of group solidarity may emerge, but this derives from the "personality" of members of the group. In other words, Durkheim argues that mechanical solidarity is strengthened by homogeneity and similarity, whereas organic solidarity is strengthened by diversity.

In a recent paper we developed this idea in order to examine the formation of social identity in small groups, proposing that identity may develop on the basis of two types of inputs (Postmes et al., in press). Specifically, we proposed that identity formation could be based on a top-down process of deduction from group-level characteristics, and a bottom-up process of induction from individual contributions. It stands to reason that if individuality is made invisible within the group, then top-down processes of deduction are more likely to exert an influence on group processes. The wider research on the SIDE model can be seen as evidence for this type of social influence under conditions where group members are depersonalised (Lea et al., 2001; Postmes et al., 1998; Reicher et al., 1995; Spears & Lea, 1992; Spears et al., 2002). On the other hand, if the individual is clearly identified (or individuated), bottom-up processes of induction may come into play in the formation of a group identity.

This idea was tested in a series of studies of social influence using a group polarisation paradigm. As mentioned above, some social psychological explanations have suggested that social comparison is responsible for group polarisation (Brown, 1965; Sanders & Baron, 1977), the idea being that group members compare themselves with each other in an attempt to occupy the socially valued extreme positions in the group, and that extremity is a socially valued position in its own right. Others have proposed that polarisation is a function of the arguments exchanged, and that informational influence is its source (e.g., Burnstein & Vinokur, 1977). Reviews have concluded that both types of influence are to some extent involved (e.g., Isenberg, 1986; Myers & Lamm, 1976), and that the predominance of each mode of social influence is determined by contextual factors such as the type of issue under discussion (Kaplan & Miller, 1987).

There are several arguments which suggest that, on their own, neither social comparison nor persuasive arguments provide a satisfactory explanation (see Turner, 1991; Wetherell, 1987, for a review). For reasons

explained shortly, neither can account for findings that in intergroup debate there is often evidence of bipolarisation (the two groups distancing themselves from each other attitudinally), even when arguments are shared among members of both groups (Postmes, Spears, & Lea, 2002). Also, polarisation can be more extreme when group members are depersonalised and their contributions are made anonymous (Homan, 2001; Kiesler, Siegel, & McGuire, 1984; Postmes et al., 2002; Sassenberg & Postmes, 2002; Schouten, 2001; Spears, Lea, & Lee, 1990; Waldzus & Schubert, 2000, Study 4). What is also noteworthy is that, in some studies, the magnitude of polarisation varies considerably across conditions even when the content of discussions is the same in all of them (Postmes et al., 2002, Study 2; Waldzus & Schubert, 2000, Study 4).

For each of these findings, simple informational influence is a very implausible explanation of the polarisation that occurred. If members of two groups access the same information, bipolarisation should not occur. Similarly, there is no reason why anonymity would enhance informational influence. Finally, if arguments are held constant, polarisation should be of a similar magnitude. Perhaps the most convincing reason that other factors than persuasive arguments play a role in the polarisation phenomenon, is that in contexts where depersonalisation increases group polarisation, recall of the persuasive arguments is, if anything, poorer (Postmes et al., 2002, Study 2). This quite directly demonstrates that such polarisation is not due to attention to specific arguments and their novelty.

For different reasons, social comparison explanations of polarisations are questioned by these findings. Most importantly, the kind of social comparison processes that are central to explaining polarisation (e.g., based on people's desire to be seen as extreme within the group) would be less strong under conditions of depersonalisation, as self-presentation is less feasible and has less purpose. It could be argued that anonymity enhances uncertainty, and thereby enhances the need for social validation (cf. Tanis, 2003; Tanis & Postmes, 2003), but importantly this would constitute a novel explanation of group polarisation (and would actually be quite closely related to the self-categorisation account).

In order to examine the mechanics of polarisation more closely—and in particular the processes of influence that lie at its heart—our recent studies manipulated the degree to which individuality could be discerned within the group or not, and independently manipulated the way in which groups were formed (Postmes et al., in press). The manipulation of individuation was similar to that described above. The manipulation of group formation was based on a distinction made by Prentice, Miller, and Lightdale (1994) between groups whose members share interpersonal bonds and those whose members share a common identity. In one condition, groups were ostensibly formed on the basis of interpersonal relations between members. In another

condition, groups were formed on the basis of some overarching similarity in their views of the world.

After the allocation to groups, participants were given a standard group polarisation task, with attitude pre-test, group discussion, and attitude post-test. The group discussion was about especially selected topics for which clear student norms existed, but which were also characterised by plenty of scope for group polarisation. For example, in one study the Dutch participants discussed the possibility of building an airport in the North Sea. Students believed that there was a strong consensus to oppose such plans, but in reality there was only mild disagreement. In two studies we predicted, and found evidence, that group polarisation was strongest when the group formation conditions matched the identifiability of individuality. As shown in Figure 4 (Postmes et al., in press, Study 2), in those groups that were formed on the basis of interpersonal relations, group polarisation (in comparison with a pre-discussion baseline) occurred when individuals were individuated. In contrast, in groups formed on the basis of a shared identity, polarisation occurred if group members were depersonalised. Direct evidence that discernible processes of identity induction and identity deduction took place was obtained in Study 2, which showed that not only did group members polarise in the same conditions as in Study 1, but also that they had inferred the existence of a group norm in those conditions. Importantly, identification was equally strong irrespective of the way in which groups were formed.

It would appear, then, that two distinct processes can be discerned in the formation of a sense of social identity in small groups. The implication is

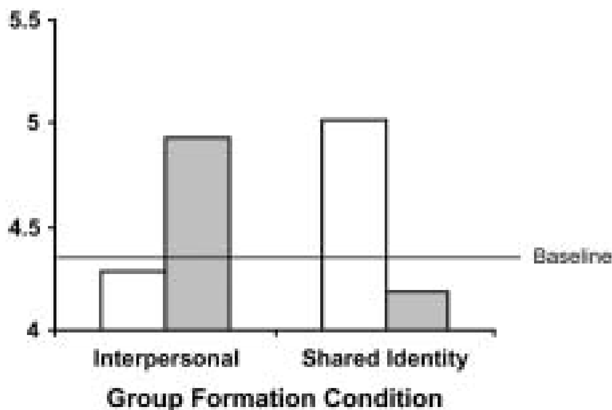

Figure 4. Effects of individuation and group formation on the occurrence of (individual) attitude polarisation after group discussion, compared to a standardised attitude base rate prior to discussion.

that both homogeneity, in the sense of an overarching unity and singularity of purpose and direction, as well as heterogeneity, in the sense of individual input and interpersonal influence, may play a role in the achievement of a collective sense of identity. This proves once more that pluralism and social identity are not incompatible.

A final study, again looking at the effects of anonymity on group polarisation, provided a direct insight into these processes (Sassenberg & Postmes, 2002, Study 2). In this study, groups of three students conducted two group discussions, following the familiar polarisation paradigm (i.e., involving pre-test, discussion, and post-test). The experimental conditions orthogonally manipulated two factors: identifiability of individual group members to the group, and identifiability of the group to each individual within it. For the purposes of the present review, we are primarily interested in examining the processes of identifiability of the group (or individuation), as this is the factor that enhances social identity salience. The topics that groups discussed were ones that had clear norms associated with them in the participant population (students from Göttingen). They were that "Nuclear power plants should be shut down as soon as possible" and that "Disadvantaged minorities should receive financial support". In order to track the processes involved more closely, content analysis was conducted of so-called "violations of coherence" in group discussions (Oehlschlegel & Piontkowski, 1997). These violations provide an indication of individual differentiation within the group during the discussion, as they involve disagreements or abrupt changes of topic.

The analysis of process data showed that when group members were individuated, and a common ingroup identity was less salient, intragroup differentiation was associated with *strong* social influence. Conversely, when group members were depersonalised and identity was salient, homogeneity (coherence) and a lack of differentiation were the best predictors of strong social influence. The former finding is entirely consistent with the traditional explanation of the group polarisation phenomenon in terms of persuasive arguments, suggesting that *novel* and diverse arguments lead to group polarisation (Burnstein & Vinokur, 1977). Yet what is distinctive in this study, as in others reviewed here, is its indication that social identity is implicated in exerting a social influence that gives the group a unitary direction *even when* the process by which this direction is established is one of individuals debating and disagreeing over the best possible course of action. It would appear, then, that heterogeneity and individual distinctiveness need not obstruct group solidarity at all (Jetten et al., 2002; van Knippenberg & Haslam, 2003).

The reverse finding that heterogeneity is negatively related to persuasion when the group was depersonalised, is not consistent with a persuasive arguments perspective, nor is it easily derived from interdependence

perspectives or social comparison accounts. It demonstrates that when individual differences within the group are obscured, homogeneity is associated with greater social influence.

Together, these findings provide strong support for self-categorisation theory (Turner, 1991). However, they also elaborate the original formulations of the theory in that they illuminate the critical importance of intragroup communication in (a) binding group members together in the face of undeniable differences between them, (b) allowing group members to deduce a set of concrete norms from the more abstract social identity that unites them, and (c) providing the medium within which individual and group-level influences interact. In allowing us to draw these conclusions, the evidence presented above provides a clear suggestion that the distinction between individual, interpersonal, and group-level social influences is problematic and hard to maintain. Indeed, our results suggest that pitting interpersonal and identity-based explanations of group processes against each other as if they were mutually exclusive (cf., Gaertner & Schopler, 1998; Hogg & Hains, 1998) violates the phenomenology of social influence. This is because our data suggest that influence is constituted by both individual and social levels *simultaneously and inseparably*. This means that intragroup processes are at the heart of the formation and definition of social identity, as much as social identity processes are key to how individuality and intragroup processes are defined and expressed (see also Onorato & Turner, 2001; Postmes & Jetten, in press; Reicher, 1996).

CONCLUSION

This review started out by noting the implications of the social identity approach for small group processes. Based on a review of research conducted over the past years in small interactive groups, we believe it is fair to conclude that theorists were essentially right to suggest that social identity principles are applicable outside the realm of intergroup relations, and, more especially, can be used to explain a variety of processes that occur in small groups (Tajfel, 1978; Tajfel & Turner, 1979; Turner et al., 1987). The ideas suggested by self-categorisation theory in particular have enhanced our understanding of phenomena such as group polarisation, social validation, the emergence of shared cognition, negotiation settlement, and decision making. If we add to this recent research in the areas of leadership and productivity (not reviewed here, but see Haslam, 2004) it should be clear that self-categorisation theory has opened a rich and rewarding line of enquiry into small group processes.

At the same time, the research reviewed above has clear implications for the processes by which social influence is constituted, and by which social identities are formed and changed. In that sense, this research within small

groups has theoretical implications for the social identity approach itself. One obvious critique of research in the social identity tradition is that it has for the most part and for a long time ignored the study of interactive group processes, to the detriment of the capacity of this work to speak to some of the most central concerns of the theory itself, such as social validation, social influence and indeed identity formation (Haslam & McGarty, 2001).

Moreover, this work suggests that mechanistic interpretations of self-categorisation theory (e.g., that social identity salience automatically leads to prototypical and uniform behaviour) are overly simplistic. Perhaps the prime reason why things do not work like this in small groups (nor in larger social categories for that matter) is that social identities are not merely deduced from certain contextual "givens" or self-stereotypes, nor are they constructed in any predetermined way from particular intergroup comparisons (Oakes et al., 1994; Turner, 1982, 1999). In addition, we suggest, intragroup negotiation and debate fulfil an important role in dynamically constituting and redefining identity over the course of group life. In this process, individuals are not passive automata. Rather, they have an active part to play in defining, redefining, and changing their identities. Indeed, they play an active role in shaping the individual components of their identity, but certainly also in shaping social identity both in the subjective and supra-individual sense of the term.

It is for this reason that the prominence of the individual and his or her motives, drives, and needs within the small group does not eliminate social identity processes from its dynamics, and conversely that the salience of social identity does not obviate the role of the individual in those intragroup processes. The research reviewed above shows that it is precisely because individuals actively engage with each other that a small group of unconnected individuals can be transformed into an entity capable of taking a collective stance and undertaking collective action. Equally, it can be said that it is precisely because of shared group membership and social identity that people can fulfil their potentials as individuals and establish their own identity (Postmes & Jetten, in press). As Marx said in the General Introduction to *Grundrisse*: "Man is in the most literal sense of the word a *zoon politikon*, not only a social animal, but an animal which can develop into an individual only in society" (1857/1993, p. 346).

In conclusion, the wider implications of this line of research for the area of small group research suggest that social identity processes may help us describe, understand, and explain many phenomena that lie at the heart of this field. Social identity is in many ways essential to understanding the social influence that the group exerts over its members, but noting that this in no way detracts from the importance of that influence which individual members exert over the group and its social identity. The character of the group most certainly shapes the behaviour of the individuals within it, but

this fact also provides the basis for individuals to play an active role both in the development of specific forms of group identity and in the expression of this identity through significant forms of social behaviour.

REFERENCES

Abrams, D., & Hogg, M. A. (1998). Prospects for research in group processes and intergroup relations. *Group Processes and Intergroup Relations*, *1*, 7–20.

Abrams, D., Wetherell, M., Cochrane, S., Hogg, M. A., & Turner, J. C. (1990). Knowing what to think by knowing who you are: Self-categorisation and the nature of norm formation, conformity and group polarisation. *British Journal of Social Psychology*, *29*, 97–119.

Allport, F. H. (1924). *Social psychology*. New York: Houghton Mifflin.

Asch, S. E. (1952). *Social psychology*. Englewood Cliffs, NJ: Prentice-Hall.

Ashforth, B. E., & Kreiner, G. E. (1999). "How can you do it?": Dirty work and the challenge of constructing a positive identity. *Academy of Management Review*, *24*, 413–434.

Barreto, M., & Ellemers, N. (2000). You can't always do what you want: Social identity and self-presentational determinants of the choice to work for a low-status group. *Personality and Social Psychology Bulletin*, *26*, 891–906.

Branscombe, N. R., Ellemers, N., Spears, R., & Doosje, B. (1999a). The context and content of social identity threat. In N. Ellemers & R. Spears (Eds.), *Social identity: Context, commitment, content* (pp. 35–58). Oxford: Blackwell Science Ltd.

Branscombe, N. R., Schmitt, M. T., & Harvey, R. D. (1999b). Perceiving pervasive discrimination among African Americans: Implications for group identification and well-being. *Journal of Personality and Social Psychology*, *77*, 135–149.

Brewer, M. B. (1991). The social self: On being the same and different at the same time. *Personality and Social Psychology Bulletin*, *17*, 475–482.

Brown, R. (1965). *Social psychology*. New York: The Free Press.

Brown, R. (2000). Social identity theory: Past achievements, current problems and future challenges. *European Journal of Social Psychology*, *30*, 745–778.

Burnstein, E. (1982). Persuasion as argument processing. In H. Brandstätter, J. H. Davis, & G. Stocker-Kreichgauer (Eds.), *Group decision making* (pp. 103–124). London: Academic Press.

Burnstein, E., & Vinokur, A. (1977). Persuasive argumentation and social comparison as determinants of attitude polarisation. *Journal of Experimental Social Psychology*, *13*, 315–332.

Cannon-Bowers, J. A., Salas, E., & Converse, S. (1993). Shared mental models in expert team decision making. In N. J. Castellan Jr. (Ed.), *Individual and group decision making* (pp. 221–246). Hillsdale, NJ: Lawrence Erlbaum Associates Inc.

David, B., & Turner, J. (1996). Studies in self-categorisation and minority conversion: Is being a member of the outgroup an advantage? *British Journal of Social Psychology*, *35*, 179–200.

De Dreu, C. K. W. (1995). Coercive power and concession making in bilateral negotiation. *Journal of Conflict Resolution*, *39*, 646–670.

De Dreu, C. K. W., & Carnevale, P. J. (2003). Motivational bases of information processing and strategy in conflict and negotiation. *Advances in Experimental Social Psychology*, *35*, 235–291.

Deutsch, M., & Gerard, H. B. (1955). A study of normative and informational social influences upon individual judgement. *Journal of Personality and Social Psychology*, *51*, 629–636.

Doosje, B., Haslam, S. A., Spears, R., Oakes, P. J., & Koomen, W. (1998). The effect of comparative context on central tendency and variability judgements and the evaluation of group characteristics. *European Journal of Social Psychology*, *28*, 173–184.

Drury, J., & Reicher, S. (2000). Collective action and psychological change: The emergence of new social identities. *British Journal of Social Psychology*, *39*, 579–604.

Duck, J. M., & Fielding, K. S. (2003). Leaders and their treatment of subgroups: Implications for evaluations of the leader and the superordinate group. *European Journal of Social Psychology*, *33*, 387–401.

Durkheim, E. (1984). *The division of labour in society*. London: Macmillan. (Original work published 1893)

Eiser, J. R., & Stroebe, W. (1972). *Categorisation and social judgment*. London: Academic Press.

Ellemers, N. (1993). The influence of socio-structural variables on identity enhancement strategies. *European Review of Social Psychology*, *4*, 27–57.

Ellemers, N., Spears, R., & Doosje, B. (2002). Self and social identity. *Annual Review of Psychology*, *53*, 161–186.

Festinger, L. (1950). Informal social communication. *Psychological Review*, *57*, 271–282.

Festinger, L. (1954). A theory of social comparison processes. *Human Relations*, *7*, 117–140.

Gaertner, L., & Schopler, J. (1998). Perceived ingroup entitativity and intergroup bias: An interconnection of self and others. *European Journal of Social Psychology*, *28*, 963–980.

Galinsky, A. D., & Kray, L. J. (2004). From thinking about what might have been to sharing what we know: The effects of counterfactual mind-sets on information sharing in groups. *Journal of Experimental Social Psychology*, *40*, 606–618.

Giles, H., Coupland, N., & Coupland, J. (1991). Accommodation theory: Communication, context, and consequence. In H. Giles & J. Coupland (Eds.), *Contexts of accommodation: Developments in applied sociolinguistics* (pp. 1–68). New York: Cambridge University Press.

Giles, H., & Powesland, P. F. (1975). *Speech style and social evaluation*. London: Academic Press.

Greenwood, J. (2004). *The disappearance of the social in American social psychology*. Cambridge: Cambridge University Press.

Haslam, S. A. (1997). Stereotyping and social influence: Foundations of stereotype concensus. In R. Spears, P. J. Oakes, N. Ellemers, & S. A. Haslam (Eds.), *The social psychology of stereotyping and group life* (pp. 119–143). Oxford: Blackwell.

Haslam, S. A. (2004). *Psychology in organisations: The social identity approach* (2nd ed.). London: Sage.

Haslam, S. A., Eggins, R. A., & Reynolds, K. J. (2003a). The ASPIRe model: Actualizing social and personal identity resources to enhance organisational outcomes. *Journal of Occupational and Organisational Psychology*, *76*, 83–113.

Haslam, S. A., & McGarty, C. (2001). A 100 years of certitude? Social psychology, the experimental method and the management of scientific uncertainty. *British Journal of Social Psychology*, *40*, 1–21.

Haslam, S. A., Oakes, P. J., Reynolds, K. J., & Turner, J. C. (1999). Social identity salience and the emergence of stereotype consensus. *Personality and Social Psychology Bulletin*, *25*, 809–818.

Haslam, S. A., & Platow, M. J. (2001). The link between leadership and followership: How affirming social identity translates vision into action. *Personality and Social Psychology Bulletin*, *27*, 1469–1479.

Haslam, S. A., Postmes, T., & Ellemers, N. (2003b). More than a metaphor: Organisational identity makes organisational life possible. *British Journal of Management*, *14*, 357–369.

Haslam, S. A., & Turner, J. C. (1992). Context-dependent variation in social stereotyping 2: The relationship between frame of reference, self-categorisation and accentuation. *European Journal of Social Psychology*, *22*, 251–277.

Haslam, S. A., Turner, J. C., Oakes, P. J., McGarty, C., & Reynolds, K. J. (1998a). The group as a basis for emergent stereotype consensus. In W. Stroebe & M. Hewstone (Eds.), *European Review of Social Psychology* (Vol. 8, pp. 203–239). Chichester, UK: Wiley.

Haslam, S. A., Turner, J. C., Oakes, P. J., Reynolds, K. J., Eggins, R. A., Nolan, M. et al. (1998b). When do stereotypes become really consensual? Investigating the group-based dynamics of the concensualization process. *European Journal of Social Psychology*, *28*, 755–776.

Haslam, S. A., van Knippenberg, D., Platow, M. J., & Ellemers, N. (Eds.). (2003c). *Social identity at work: Developing theory for organisational practice*. Philadelphia, PA: Psychology Press.

Hewstone, M., Rubin, M., & Willis, H. (2002). Intergroup bias. *Annual Review of Psychology*, *53*, 575–604.

Hogg, M. A. (1992). *The social psychology of group cohesiveness: From attraction to social identity*. Hemel Hempstead, UK: Harvester Wheatsheaf.

Hogg, M. A. (1996). Intragroup processes, group structure and social identity. In W. P. Robinson (Ed.), *Social groups and identities: Developing the legacy of Henri Tajfel* (pp. 65–94). Oxford: Butterworth-Heinemann.

Hogg, M. A., & Hains, S. C. (1998). Friendship and group identification: A new look at the role of cohesiveness in groupthink. *European Journal of Social Psychology*, *28*, 323–341.

Hogg, M. A., & Martin, R. (2003). Social identity analysis of leader–member relations: Reconciling self-categorisation and leader–member exchange theories of leadership. In S. A. Haslam, D. van Knippenberg, M. J. Platow, & N. Ellemers (Eds.), *Social identity at work: Developing theory for organisational practice* (pp. 139–154). Philadelphia, PA: Psychology Press.

Hogg, M. A., & Terry, D. J. (2000). Social identity and self-categorisation processes in organisational contexts. *Academy of Management Review*, *25*, 121–140.

Hogg, M. A., Turner, J. C., & Davidson, B. (1990). Polarised norms and social frames of reference: A test of the self-categorisation theory of group polarisation. *Basic and Applied Social Psychology*, *11*, 77–100.

Homan, A. (2001). *Effects of anonymity in online groups: Variables that determine groupiness and the behavioural consequences*. Unpublished Masters Thesis, University of Amsterdam.

Ickes, W., & Gonzalez, R. (1994). "Social" cognition and social cognition: From the subjective to the intersubjective. *Small Group Research*, *25*, 294–315.

Isenberg, D. J. (1986). Group polarisation: A critical review and meta-analysis. *Journal of Personality and Social Psychology*, *50*, 1141–1151.

Jetten, J., Postmes, T., & McAuliffe, B. (2002). "We're *all* individuals": Group norms of individualism and collectivism, levels of identification, and identity threat. *European Journal of Social Psychology*, *32*, 189–207.

Kaplan, M. F., & Miller, C. E. (1987). Group decision making and normative versus informational influence: Effects of type of issue and assigned decision rule. *Journal of Personality and Social Psychology*, *53*, 306–313.

Katz, D., & Braly, K. (1933). Racial stereotypes of one hundred college students. *Journal of Abnormal Psychology*, *28*, 280–290.

Katz, D., & Kahn, R. L. (1966). *The social psychology of organisations*. New York: Wiley.

Kerr, N. L., & Tindale, R. S. (2004). Group performance and decision making. *Annual Review of Psychology*, *55*, 623–655.

Kiesler, S., Siegel, J., & McGuire, T. W. (1984). Social psychological aspects of computer-mediated communication. *American Psychologist*, *39*, 1123–1134.

Klein, O., Jacobs, A., Gemoets, S., Licata, L., & Lambert, S. M. (2003). Hidden profiles and the consensualisation of social stereotypes: How information distribution affects stereotype content and sharedness. *European Journal of Social Psychology*, *33*, 755–777.

Klimoski, R., & Mohammed, S. (1994). Team mental model – Construct or metaphor. *Journal of Management*, *20*, 403–437.

Larson, J. R., & Christensen, C. (1993). Groups as problem-solving units – Toward a new meaning of social cognition. *British Journal of Social Psychology*, *32*, 5–30.
Le Bon, G. (1995). *The crowd: A study of the popular mind*. London: Transaction Publishers. (Original work published 1895)
Lea, M., & Spears, R. (1991). Computer-mediated communication, de-individuation and group decision-making. [Special Issue: Computer-supported cooperative work and groupware.] *International Journal of Man Machine Studies*, *34*, 283–301.
Lea, M., Spears, R., & de Groot, D. (2001). Knowing me, knowing you: Anonymity effects on social identity processes within groups. *Personality and Social Psychology Bulletin*, *27*, 526–537.
Lee, E. J. (2004). Effects of visual representation on social influence in computer-mediated communication. *Human Communication Research*, *30*, 234–259.
Levine, J. M., & Resnick, L. B. (1993). Social foundations of cognition. *Annual Review of Psychology*, *44*, 585–612.
Liang, D. W., Moreland, R., & Argote, L. (1995). Group versus individual training and group-performance – The mediating role of transactive memory. *Personality and Social Psychology Bulletin*, *21*, 384–393.
Lickel, B., Hamilton, D. L., & Sherman, S. J. (2001). Elements of a lay theory of groups: Types of groups, relational styles, and the perception of group entitativity. *Personality and Social Psychology Review*, *5*, 129–140.
Liljenquist, K. A., Galinsky, A. D., & Kray, L. J. (2004). Exploring the rabbit hole of possibilities by myself or with my group: The benefits and liabilities of activating counterfactual mind-sets for information sharing and group coordination. *Journal of Behavioural Decision Making*, *17*, 263–279.
Mackie, D. M. (1986). Social identification effects in group polarisation. *Journal of Personality and Social Psychology*, *50*, 720–728.
Mackie, D. M., & Cooper, J. (1984). Attitude polarisation: Effects of group membership. *Journal of Personality and Social Psychology*, *46*, 575–585.
Marx, K. (1993). *The grundrisse: Foundations of the critique of political economy*. London: Penguin. (Original work published 1857)
McDougall, W. (1921). *The group mind*. Cambridge: Cambridge University Press.
McGarty, C. (1999). *Categorisation in social psychology*. London: Sage.
McGarty, C., & Penny, R. E. C. (1988). Categorisation, accentuation and social judgment. *British Journal of Social Psychology*, *27*, 147–157.
Moreland, R. L., Argote, L., & Krishnan, R. (1996). Socially shared cognition at work: Transactive memory and group performance. In J. Nye & A. Brower (Eds.), *What's social about social cognition? Research on socially shared cognition in small groups* (pp. 57–84). Newbury Park, CA: Sage.
Moscovici, S., & Zavalloni, M. (1969). The group as a polarizer of attitudes. *Journal of Personality and Social Psychology*, *12*, 125–135.
Myers, D. G., & Lamm, H. (1976). The group polarisation phenomenon. *Psychological Bulletin*, *83*, 602–627.
Oakes, P. J. (1987). The salience of social categories. In J. C. Turner, M. A. Hogg, P. J. Oakes, S. Reicher, & M. S. Wetherell (Eds.), *Rediscovering the social group: A self-categorisation theory* (pp. 117–141). Oxford: Basil Blackwell.
Oakes, P. J., Haslam, S. A., & Turner, J. C. (1994). *Stereotyping and social reality*. Oxford: Blackwell.
Oakes, P. J., Turner, J. C., & Haslam, S. A. (1991). Perceiving people as group members: The role of fit in the salience of social categorisations. *British Journal of Social Psychology*, *30*, 125–144.

Oehlschlegel, S., & Piontkowski, U. (1997). Topic progression and social categorisation. *Journal of Language and Social Psychology*, *16*, 444–455.

Onorato, R. S., & Turner, J. C. (2001). The "I," the "me," and the "us": The psychological group and self-concept maintenance and change. In C. Sedikides & M. B. Brewer (Eds.), *Individual self, relational self, collective self* (pp. 147–170). Philadelphia, PA: Psychology Press.

Postmes, T. (2003). A social identity approach to communication in organisations. In S. A. Haslam, D. van Knippenberg, M. J. Platow, & N. Ellemers (Eds.), *Social identity at work: Developing theory for organisational practice* (pp. 81–98). Philadelphia, PA: Psychology Press.

Postmes, T., & Jetten, J. (Eds.). (in press). *Individuality and the group: Advances in social identity*. London: Sage.

Postmes, T., Spears, R., & Cihangir, S. (2001a). Quality of decision making and group norms. *Journal of Personality and Social Psychology*, *80*, 918–930.

Postmes, T., Spears, R., & Lea, M. (1998). Breaching or building social boundaries? SIDE-effects of computer-mediated communication. *Communication Research*, *25*, 689–715.

Postmes, T., Spears, R., & Lea, M. (2000). The formation of group norms in computer-mediated communication. *Human Communication Research*, *26*, 341–371.

Postmes, T., Spears, R., & Lea, M. (2002). Intergroup differentiation in computer-mediated communication: Effects of depersonalization. *Group Dynamics*, *6*, 3–16.

Postmes, T., Spears, R., Lee, T., & Novak, R. (in press). Individuality and social influence in groups: Inductive and deductive routes to group identity. *Journal of Personality and Social Psychology*.

Postmes, T., Spears, R., Sakhel, K., & De Groot, D. (2001b). Social influence in computer-mediated communication: The effects of anonymity on group behaviour. *Personality and Social Psychology Bulletin*, *27*, 1242–1254.

Prentice, D. A., Miller, D. T., & Lightdale, J. R. (1994). Asymmetries in attachments to groups and to their members: Distinguishing between common-identity and common-bond groups. [Special Issue: The self and the collective.] *Personality and Social Psychology Bulletin*, *20*, 484–493.

Pruitt, D. G., & Carnevale, P. J. (1993). *Negotiation in social conflict*. Milton Keynes, UK: Open University Press.

Reicher, S. (1987). Crowd behaviour as social action. In J. C. Turner, M. A. Hogg, P. J. Oakes, S. Reicher, & M. S. Wetherell (Eds.), *Rediscovering the social group: A self-categorisation theory* (pp. 171–202). Oxford: Basil Blackwell.

Reicher, S. (1996). "The Battle of Westminster:" Developing the social identity model of crowd behaviour in order to explain the initiation and development of collective conflict. *European Journal of Social Psychology*, *26*, 115–134.

Reicher, S. (2001). Social identity definition and enactment: A broad SIDE against irrationalism and relativism. In T. Postmes, R. Spears, M. Lea, & S. Reicher (Eds.), *SIDE effects centre stage: Recent developments in studies of de-individuation in groups*. Amsterdam: Elsevier.

Reicher, S., & Hopkins, N. (2001). *Self and nation*. London: Sage.

Reicher, S., Hopkins, N., & Condor, S. (1997). Stereotype construction as a strategy of influence. In R. Spears, P. J. Oakes, N. Ellemers, & S. A. Haslam (Eds.), *The social psychology of stereotyping and group life*. Oxford: Blackwell.

Reicher, S., Spears, R., & Postmes, T. (1995). A social identity model of deindividuation phenomena. In W. Stroebe & M. Hewstone (Eds.), *European Review of Social Psychology* (Vol. 6, pp. 161–198). Chichester, UK: Wiley.

Reynolds, K. J., Oakes, P. J., Haslam, S. A., Nolan, M. A., & Dolnik, L. (2000). Responses to powerlessness: Stereotyping as an instrument of social conflict. *Group Dynamics*, *4*, 275–290.

Sanders, G. S., & Baron, R. S. (1977). Is social comparison irrelevant for producing choice shifts? *Journal of Experimental Social Psychology*, *13*, 303–314.

Sassenberg, K., & Postmes, T. (2002). Cognitive and strategic processes in small groups: Effects of anonymity of the self and anonymity of the group on social influence. *British Journal of Social Psychology*, *41*, 463–480.

Schouten, A. (2001). *Context creates identity: The effects of task type and individuation on group formation*. Unpublished Masters Thesis, University of Amsterdam.

Sherif, M. (1935). A study of some social factors in perception. *Archives of Psychology*, *187*, 1–60.

Sherif, M. (1936). *The psychology of social norms*. New York: Harper.

Spears, R., & Lea, M. (1992). Social influence and the influence of the 'social' in computer-mediated communication. In M. Lea (Ed.), *Contexts of computer-mediated communication* (pp. 30–65). Hemel Hempstead, UK: Harvester Wheatsheaf.

Spears, R., Lea, M., & Lee, S. (1990). De-individuation and group polarisation in computer-mediated communication. *British Journal of Social Psychology*, *29*, 121–134.

Spears, R., Postmes, T., Lea, M., & Wolbert, A. (2002). The power of influence and the influence of power in virtual groups: A SIDE look at CMC and the Internet. [Special Issue: Social impact of the Internet.] *The Journal of Social Issues*, *58*, 91–108.

Stangor, C., & Lange, J. (1993). Mental representations of social groups: Advances in understanding stereotypes and stereotyping. In M. P. Zanna (Ed.), *Advances in Experimental Social Psychology* (Vol. 26, pp. 357–416). New York: Academic Press.

Stasser, G., & Titus, W. (1985). Pooling of unshared information in group decision making: Biased information sampling during discussions. *Journal of Personality and Social Psychology*, *48*, 1467–1478.

Stott, C., & Drury, J. (2004). The importance of social structure and social interaction in stereotype consensus and content: Is the whole greater than the sum of its parts? *European Journal of Social Psychology*, *34*, 11–23.

Swaab, R. I., Postmes, T., Neijens, P., Kiers, M. H., & Dumay, A. C. M. (2002). Multiparty negotiation support: The role of visualization's influence on the development of shared mental models. *Journal of Management Information Systems*, *19*, 129–150.

Swaab, R. I., Postmes, T., Spears, R., Van Beest, I., & Neijens, P. (2005). *Shared cognition as a product of, and precursor to, shared social identity: The role of communication in negotiations*. Manuscript submitted for publication.

Swann, W. B., Kwan, V. Y. A., Polzer, J. T., & Milton, L. P. (2003). Fostering group identification and creativity in diverse groups: The role of individuation and self-verification. *Personality and Social Psychology Bulletin*, *29*, 1396–1406.

Tajfel, H. (1978). Interindividual behaviour and intergroup behaviour. In H. Tajfel (Ed.), *Differentiation between groups: Studies in the social psychology of intergroup relations* (pp. 27–60). London: Academic Press.

Tajfel, H. (1981). *Human groups and social categories*. Cambridge: Cambridge University Press.

Tajfel, H., & Turner, J. C. (1979). An integrative theory of intergroup conflict. In S. Worchel & W. G. Austin (Eds.), *The psychology of intergroup relations* (pp. 33–47). Monterey, CA: Brooks-Cole.

Tanis, M. (2003). *Cues to identity in CMC: The impact of person perception and subsequent interaction outcomes*. Unpublished PhD Thesis, University of Amsterdam.

Tanis, M., & Postmes, T. (2003). Social cues and impression formation in CMC. *Journal of Communication*, *53*, 676–693.

Tindale, R. S., Meisenhelder, H. M., Dykema-Engblade, A. A., & Hogg, M. A. (2001). Shared cognition in small groups. In M. A. Hogg & R. S. Tindale (Eds.), *Blackwell handbook of social psychology: Group processes* (pp. 1–30). Oxford: Blackwell.

Turner, J. C. (1982). Towards a cognitive redefinition of the group. In H. Tajfel (Ed.), *Social identity and intergroup relations* (pp. 15–40). Cambridge: Cambridge University Press.

Turner, J. C. (1985). Social categorisation and the self-concept: A social cognitive theory of group behaviour. In E. J. Lawler (Ed.), *Advances in group processes: Theory and research* (Vol. 2, pp. 77–122). Greenwich, CT: JAI Press.

Turner, J. C. (1991). *Social influence*. Milton Keynes, UK: Open University Press.

Turner, J. C. (1999). Some current issues in research on social identity and self-categorisation theories. In N. Ellemers, R. Spears, & B. Doosje (Eds.), *Social identity: Context, commitment, content* (pp. 68–89). Oxford: Basil Blackwell.

Turner, J. C., Hogg, M. A., Oakes, P. J., Reicher, S., & Wetherell, M. S. (1987). *Rediscovering the social group: A self-categorisation theory*. Oxford: Basil Blackwell.

Turner, J. C., & Oakes, P. J. (1986). The significance of the social identity concept for social psychology with reference to individualism, interactionism and social influence. [Special Issue: The individual–society interface.] *British Journal of Social Psychology*, *25*, 237–252.

Turner, J. C., & Onorato, R. S. (1999). Social identity, personality, and the self-concept: A self-categorizing perspective. In T. R. Tyler & R. M. Kramer (Eds.), *The psychology of the social self: Applied social research* (pp. 11–46). Mahwah, NJ: Lawrence Erlbaum Associates Inc.

Turner, J. C., Wetherell, M. S., & Hogg, M. A. (1989). Referent informational influence and group polarisation. *British Journal of Social Psychology*, *28*, 135–147.

Van Knippenberg, A., & Wilke, H. (1988). Social categorisation and attitude change. *European Journal of Social Psychology*, *18*, 395–406.

Van Knippenberg, D., de Vries, N., & Van Knippenberg, A. (1990). Group status, group size and attitude polarisation. *European Journal of Social Psychology*, *20*, 253–257.

van Knippenberg, D., & Haslam, S. A. (2003). Harnessing the diversity dividend: Exploring the subtle interplay between identity, ideology and reality. In S. A. Haslam, D. van Knippenberg, M. J. Platow, & N. Ellemers (Eds.), *Social identity at work: Developing theory for organisational practice* (pp. 61–77). Philadelphia, PA: Psychology Press.

Waldzus, S., & Schubert, T. (2000). Group norm and category norm in anonymous situations: Two sources of social influence. In T. Postmes, R. Spears, M. Lea, & S. Reicher (Eds.), *SIDE effects centre stage: Recent developments in studies of de-individuation in groups*. Amsterdam: Elsevier.

Wegge, J., & Haslam, S. A. (2003). Group goal setting, social identity and self-categorisation: Engaging the collective self to enhance group performance and organisational outcomes. In S. A. Haslam, D. van Knippenberg, M. J. Platow, & N. Ellemers (Eds.), *Social identity at work: Developing theory for organisational practice* (pp. 74–99). London: Taylor & Francis.

Wegner, D. M. (1987). Transactive memory: A contemporary analysis of the group mind. In B. M. Mullen & G. R. Goethals (Eds.), *Theories of group behaviour* (pp. 185–208). New York: Springer.

Weick, K. E., & Roberts, K. H. (1993). Collective mind in organisations: Heedful interrelating on flight decks. *Administrative Science Quarterly*, *38*, 357–381.

Weingart, L. R., Bennett, R. J., & Brett, J. M. (1993). The impact of consideration of issues and motivational orientation on group negotiation process and outcome. *Journal of Applied Psychology*, *78*, 504–517.

Wetherell, M. S. (1987). Social identity and group polarisation. In J. C. Turner, M. A. Hogg, P. J. Oakes, S. Reicher, & M. S. Wetherell (Eds.), *Rediscovering the social group: A self-categorisation theory* (pp. 142–170). Oxford: Basil Blackwell.

Wilder, D. A. (1977). Perception of groups, size of opposition, and social influence. *Journal of Experimental Social Psychology*, *13*, 253–268.

Wilder, D. A. (1990). Some determinants of the persuasive power of ingroups and outgroups: Organisation of information and attribution of independence. *Journal of Personality and Social Psychology*, *59*, 1202–1213.

Wittenbaum, G. M., & Stasser, G. (1996). Management of information in small groups. In J. L. Nye & A. M. Brower (Eds.), *What's social about social cognition? Research on socially shared cognition in small groups* (pp. 3–28). Thousand Oaks, CA: Sage.

Worchel, S., Rothgerber, H., Day, E. A., Hart, D., & Butemeyer, J. (1998). Social identity and individual productivity within groups. *British Journal of Social Psychology*, *37*, 389–413.

Wright, S. C., Taylor, D. M., & Moghaddam, F. M. (1990). Responding to membership in a disadvantaged group: From acceptance to collective protest. *Journal of Personality and Social Psychology*, *58*, 994–1003.

Zurcher, L. A. (1965). The sailor aboard ship: A study of role behaviour in a total institution. *Social Forces*, *43*, 389–400.