ГОДИШНИК НА СОФИЙСКИЯ УНИВЕРСИТЕТ „СВ. КЛИМЕНТ ОХРИДСКИ“
ФИЛОСОФСКИ ФАКУЛТЕТ
Книга Психология
Том 103
ANNUAIRE DE L’UNIVERSITE DE SOFIA “ST. KLIMENT OHRIDSKI“
FACULTE DE PHILOSOPHIE
Livre Psychologie
Tome 103

TYPES OF INGROUP IDENTIFICATION AS A FUNCTION OF GROUP TYPE

MILEN MILANOV*, MARK RUBIN**, STEFANIA PAOLINI**

**Катедра по „Обща, експериментална и генетична психология, СУ „Св. Климент Охридски“*
*** Катедра Психология, Университет на Нюкасъл, Австралия*
** Department of General, Experimental, and Genetic Psychology, Sofia University*
*** School of Psychology, University of Newcastle, Australia*

Two empirical studies investigated the relation between different types of social groups and four core types of ingroup identification. It was hypothesized that particular types of group would be associated with particular types of ingroup identification. With minor discrepancies across samples, participants showed stronger social identification with social category groups, stronger communal identification with intimacy groups, and stronger interdependent identification with task groups. The results confirmed predictions and provided sufficient evidence to conclude that the manifestation of different types of ingroup identity varies as a function of the type of group that is most salient at the moment of identification.

Милен. Миланов*, Марк Рюбин**, Стефаниа Паолини**. ВИДОВЕ ВЪТРЕШНОГРУПОВА ИДЕНТИФИКАЦИЯ КАТО ФУНКЦИЯ НА ТИПА ГРУПА

Две емпирични изследвания разкриват връзката между различни типове социални групи и четири основни вида вътрешногрупова идентификация. Предположено е, че конкретни типове групи ще бъдат свързани с конкретни видове вътрешногрупова идентификация. С малки несъответствия между извадките, участниците в изследванията показват по-силна социална идентификация със социална категория групи, по-силна общностна идентификация с интимни групи и по-силна взаимозависима идентифика-

ция с работни групи. Резултатите потвърждават предвижданията и предоставят достатъчно доказателства, за да се заключи, че проявата на различни видове групова идентификация варира като функция на типа на групата, която е най-актуална в момента на идентифициране.

THEORETICAL BACKGROUND

The Group Type Hypothesis

Researchers have investigated different types of groups and proposed a range of group typologies (e.g., Aharpour & Brown, 2002; Brewer, 2004; Caporael & Brewer, 1995; Deaux, Reid, Mizrahi, & Ethier, 1995; Lickel et al., 2000; Pickett, Silver, & Brewer, 2002). For example, Deaux et al. (1995) identified five distinct group clusters based on personal relationships, vocations and hobbies, stigma, political affiliation, and ethnicity or religion. Caporael and Brewer (1995) proposed a four-level hierarchical model of group structure distinguishing between dyads, teams, demes, and tribes. More recently, Lickel et al. (2000) found evidence for four basic group types: intimacy groups, task groups, social category groups, and loose associations groups. Using this group typology, Johnson et al. (2006) examined functional aspects of each type of group and provided additional support for Lickel et al.'s (2000) distinction.

The above research suggests that social groups differ along a number of factors, functions and relational principles in a relatively complex way. Different types of groups possess different characteristics and serve different identity functions (Aharpour & Broun, 2002; Deaux et al., 1995) which will impact on the potential for having different types of ingroup identification with these groups. Consistent with this idea, Leach et al. (2008) suggested that „individuals may identify in different ways with different groups" (p. 163), and Roccas, Sagiv, Schwartz, Halevy, & Eidelson (2008) proposed that people might have a „different profile of identification with each group" (p. 295).

However, Leach et al. (2008) and Roccas et al. (2008) investigated and discussed the constructs, or the modes, of ingroup identification with larger, category based groups (e.g. Europeans, Dutch, Muslims, etc.). In contrast, the present research focuses on four different types of ingroup identification (centrality, social identification, communal identification, and interdependent identification) and their relation with a variety of social groups that differ in size, meaning and purpose.

Centrality refers to the salience of the group and the group membership together with the importance of the group for an individual's self-concept. *Social identification* is based on the processes of self-categorization and depersonalization. Individuals who have a relatively high level of social identification lose their

sense of individuality and perceive themselves as interchangeable members of their group. *Communal* and *interdependent* identification, on the other hand, relate more to the specific interpersonal processes through which group members identify with other group members without losing their sense of individuality. The key aspect that separates these two types of ingroup identification is the particular type of relationships (i.e., communal or exchange relationships) between the members of the group. These relationships establish the nature of the interpersonal interaction in the ingroup and determine individuals' expectations that are associated with the group membership (Clark & Mills, 1993; Mills & Clark, 1994).

Following the above distinction between four core types of ingroup identification, we expected people to show stronger social identification with large category-based groups (e.g., ethnicity, nationality, religion), because these groups bind individuals together based on perceived similarities and sense of interchangeability between members. We also expected people to show stronger communal identification with intimacy groups (e.g., family, close friendships), because these groups bind individuals together based on empathy, close attachment, and strong sense of closeness between members. Finally, we expected people to show stronger interdependent identification with task groups (e.g., business partners, study groups), because group members expect to receive comparable benefits in return of the efforts they invest in these types of groups.

In support of the above hypotheses, research by Lickel et al. (2006) and Johnson et al. (2006) provided evidence that Lickel et al.'s (2000) different types of groups fulfil conceptually different psychological needs and are ruled by a conceptually different relational models (as specified by Fiske, 1991).

In particular, Lickel et al. (2000) revealed that people usually distinguish between social categories and dynamic groups (Wilder & Simon, 1998). Social category groups are based on the perception of having shared characteristics with other ingroup members, while dynamic groups are primarily associated with interpersonal interaction and interdependence between the group members. From the four types of group identification investigated in our research, only social identification involves the perception of similarity between group members in the characteristics that they share. It could be expected then, that social identification will be most strongly related to social categories than to dynamic groups.

Following on Lickel et al.'s (2000) work, Johnson et al. (2006) found that intimacy groups were to a large extent related with the fulfilment of affiliation needs, while task groups were most strongly associated with the fulfilment of achievement needs. However, their attempt to link social category groups with the specific fulfilment of identification needs was unsuccessful because each of the investigated three types of groups appeared to satisfy identity needs equally well. These results are consistent with the main idea of the current work. They suggest that all social groups fulfil individuals' identification needs and ingroup identification will occur with any group in general. However, it is the focus of the

identification processes, and consequently the type of identification, that might differ between groups. In other words, people will identify with their group in order to fulfil their overall identity needs but some types of identification will be more or less associated with the fulfilment of other particular needs (such as achievement or affiliation) relative to the individual's specific group membership. The affiliation needs are defined by emotional attachment and support between group members and their fulfilment is most strongly related to intimacy group. Given the specific characteristics of each of the investigated types of ingroup identification, it is communal identification then that should be primarily associated with the fulfilment of such needs and, consequently, with intimacy groups. Membership in task groups, on the other hand, helps members fulfil their needs of success and goal-achievement. Such motives and mechanisms are in the core of interdependent identification, and therefore this type of identification should be primarily associated with task groups.

In a study aiming to further clarify the peculiarities of the group clusters in Lickel et al.'s (2000) group taxonomy, Lickel, Rutchick, Hamilton, & Sherman (2006) investigated the relational principles (Fiske, 1991) that govern the interactions in different types of groups. Based on the idea that type of members interaction is one of the main features that separate group types, the researchers proposed that participants' perceptions of each group type would be characterized by a distinctive combination of relationship models. The four relational principles, as specified by Fiske (1991) and used in Lickel et al.'s (2006) research are: market pricing, equality matching, communal sharing, and authority ranking. The results of Lickel et al.'s (2006) study showed that intimacy groups accounted for higher levels of communal sharing and equality matching and low levels of market pricing. Task groups were associated with higher market pricing and authority ranking and lower communal sharing. Finally, social category groups were found to have modest levels of equality matching and relatively low levels of other relational principles.

From the view point of the current work, two of the four relationship principles: market pricing and communal sharing, are of a particular interest because they correspond to our concepts of interdependent and communal identification respectively. As Lickel et al.'s (2006) pointed out, „market pricing is guided by a calculation of the utility of the interaction" (p. 29) while communal sharing is defined by a selfless generosity in the exchange of benefits between group members. These two different relational principles are consistent with previous research that draws a distinction between exchange and communal relationships (Clark & Mills, 1979; Clark & Mills, 1993; Mills & Clark, 1994). In particular, the concept of communal sharing is relatively similar to the concept underlying communal relationships in Clark and Mills' (1979, 1993) work, while the concept of market pricing lies at the core of exchange relationships. As discussed earlier, our distinction between communal and interdependent identification is based on the distinction between com-

munal and exchange relationships. Communal identification is qualified in terms of close, communal relationships with the other group members. Interdependent identification is qualified by more instrumental, exchange-oriented relationships with other group members. These theoretical connections between relational principles, types of relationships, and types of ingroup identification once again lead to the conclusion that specific types of groups will be more or less associated with specific types of ingroup identification. In particular, given the exact links between the concepts explained above, task groups should be associated with higher levels of interdependent identification and intimacy groups should be associated with higher levels of communal identification.

Finally, it should be noted that the intimacy, task, and social category groups used in this research are based on Lickel et al.'s (2000) group taxonomy. However, we did not use a representative of Lickel et al.'s loose associations groups (e.g., people waiting in a queue) because these groups have low levels of interaction, are usually short-lived, and „typically function as a group only for purposes that are restricted in focus and only temporary important" (Lickel et al., 2006, p. 30). Hence, it is unlikely that people would be able to clearly identify with such groups.

Preliminary Studies and Findings

In two preliminary tests of the group type hypotheses, we investigated the relationship between different types of groups and the four different types of ingroup identification (Milanov, Rubin & Paolini, 2010). In these studies, we used the data from a single item that asked participants to type the top three groups that they thought about as they completed a questionnaire related to group identification. Based on this item, we created three variables named intimacy group, task group and category group. We then correlated these variables with four core types of ingroup identification in order to reveal whether differences in the salience of particular types of groups were related to differences in the extent of each type of ingroup identification.

Consistent with predictions, the results showed a significant positive correlation between communal identification and the extent to which people thought about intimacy groups and a significant positive correlation between interdependent identification and the extent to which people thought about task groups. The results also showed a significant negative correlation between interdependent identification and the extent to which people thought about intimacy groups and a significant negative correlation between communal identification and the extent to which people thought about task groups. Finally, the results showed a significant positive correlation between intimacy groups and centrality. These findings provided preliminary evidence that different types of group are related to different types of ingroup identification.

STUDY 1

Overview

The current study is a systematic and extensive examination of the exact link between different types of groups and different types of ingroup identification. In the preliminary studies mentioned above, participants were able to consider various types of groups simultaneously when answering the questionnaire. Participants in these studies usually identified with two or three different groups at the same time and the group related data needed to be processed and coded before analysis. In addition, the correlational design of the preliminary research lead to ambiguity about the casual direction of the detected relationship between thinking about different types of groups and the strength of different types of ingroup identification. In contrast, in the present study, we implemented three experimental between-subjects conditions in which people were asked to think about only one group of a specific type. Hence, each participant in the current study identified with a single group that was a representative of either intimacy, task, or social category. This experimental approach allowed a clearer and more direct analysis of the effects of each group type on different types of ingroup identification.

Method

Participants. During a three-month period, we collected data from 143 participants. However, 14 participants did not fully complete the questionnaire. Following previously adopted rules for such cases, these participant were considered as having withdrawn from the study and their data was deleted. Furthermore, a manipulation check item showed that some participants did not follow the instruction to think about the particular type of group that they were asked to think about. For example, participants who were asked to think about one of their social category groups (e.g., gender, religion), reported that they would consider a task group (e.g., work colleagues, sport team) when completing the questionnaire. Based on the detection of such a discrepancy, the data from 48 participants was excluded from the analyses. Hence, in this study we analyzed the data from 81 participants.

Participants were 28 men and 53 women who ranged in age from 18 to 59 years. The average age was 28.32 (SD = 10.36). Thirty eight participants thought about an intimacy group, 23 thought about a task group, and 20 thought about a social category group.

Procedure and measures. The study was presented on the internet using computer-based software. The internet link for this study was placed in a number of websites that list online psychological surveys (i.e., www.socialpsychology.org; http://genpsylab-wexlist.unizh.ch/; www.psychresearch.org.uk). People from all

over the world willing to participate were able to complete the questionnaire at any time from any computer with internet access. All participants completed a single questionnaire consisting of the 20-item version of the Centrality, Social, Communal and Interdependent Identification Scale-CSCIIS (Milanov, Rubin & Paolini, 2010) that measures four different types of ingroup identification simultaneously. Participants were randomly assigned to different conditions and received one of three different instructions. Each instruction asked participants to consider either an intimacy group, a task group, or a social category group when answering the questionnaire. All three types of groups were first identified and briefly explained.

A manipulation check item after the instruction asked participants to type the exact group that they would think about. The purpose of this item was to reveal whether or not participants had followed the received instruction and thought about the specific type of group that they were asked to think about. It took participants approximately 15 minutes to complete the research study.

Results

To investigate the impact that thinking about different types of group had on different types of ingroup identification, we conducted a series of one-way between subject ANOVAs with the type of group as an independent variable and each type of identification as a dependent variable. As expected, different types of group enhanced different types of ingroup identification.[1]

First, there was a significant effect of group type on social identification, $F(2, 78) = 8.54$, $p < .01$, $\eta_p^2 = .18$. Levene's test for homogeneity of variances revealed a significant violation of the assumption of homogeneity of variance ($p < .01$). Therefore, we used Games-Howell's post hoc test in our follow-up analyses because it is designed for unequal variances and unequal sample sizes. Consistent with predictions, the results showed that participants had significantly higher social identification with social category groups ($M = 3.51$) compared to task groups ($M = 2.50$; $p < .01$) and intimacy groups ($M = 2.70$; $p < .05$). There was no significant difference between participants' social identification with task groups ($M = 2.50$) and intimacy groups ($M = 2.70$; $p = .39$). Figure 1 illustrates the mean scores on social identification for the three different types of groups.

[1] We also conducted a second series of ANOVAs that included the data from the 48 participants who were initially excluded from the analysis. These participants indicated in their answers that they would think about a group that was different from the group that they were asked to think about. For the purpose of this additional investigation, participants' answers were coded according to the group that they decided to think about, even if it did not match the instruction. In terms of the type of group-type of identification relationships, the pattern of results that emerged from this analysis was identical to the pattern reported. All significant effects of group type on type of identification were the same.

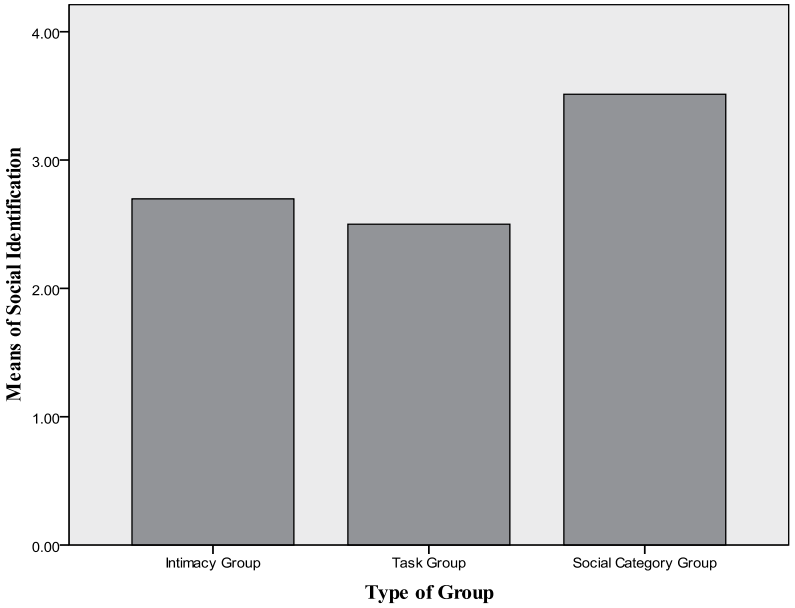

Fig. 1. Differences in the mean scores of social identification as a function of group type.

Second, there was a significant effect of group type on interdependent identification, $F(2, 78) = 14.88$, $p < .01$, $\eta_p^2 = .28$. Levene's test again revealed a significant violation of the assumption of homogeneity of variance ($p < .01$). Therefore, for the follow-up analyses we used Games-Howell's post-hoc test. Consistent with predictions, the results showed that participants had significantly higher interdependent identification with task groups ($M = 2.99$) compared to intimacy groups ($M = 1.92$; $p < .01$). The results also showed that participants had significantly higher interdependent identification with social category groups ($M = 2.55$) than with intimacy groups ($M = 1.92$; $p < .01$). There was no significant difference between participants' interdependent identification with task groups ($M = 2.99$) and social category groups ($M = 2.55$; $p = .15$). Figure 2 illustrates the mean scores on interdependent identification for the three different types of groups.

Finally, there was a significant effect of group type on communal identification, $F(2, 78) = 11.74$, $p < .01$, $\eta_p^2 = .23$. There was no violation of the assumption of homogeneity of variances in this case ($p = .52$). Therefore, for further analysis we used Fisher's (1935) Least Significant Difference post-hoc tests. Consistent with predictions, participants had significantly higher communal identification with intimacy groups ($M = 4.22$) compared to task groups ($M = 3.38$; $p < .01$) and social category groups ($M = 3.85$; $p = .04$). There was also a significant difference between participants' communal identification with social category groups ($M = 3.85$) and task groups ($M = 3.38$; $p = .02$). Figure 3 illustrates the mean scores on

communal identification for the three different types of groups. The effect of group type on centrality was not significant, $F(2, 78) = 1.25$, $p = .29$.

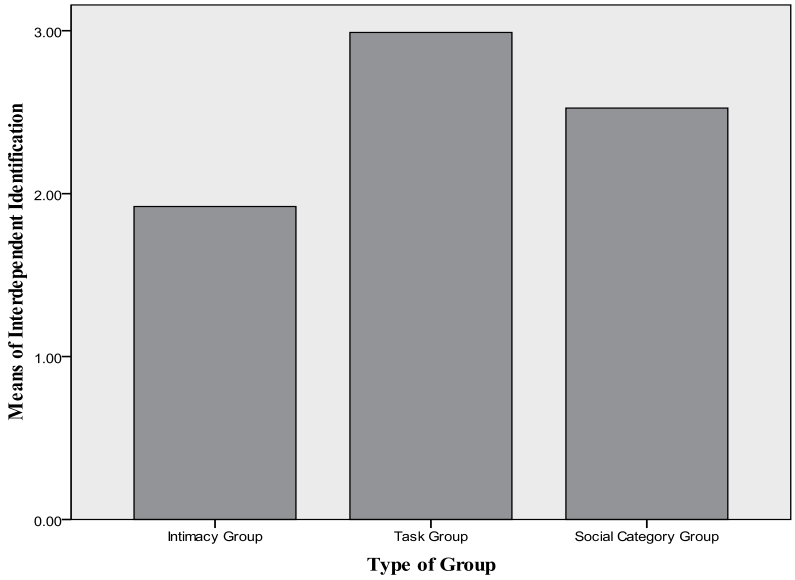

Fig. 2. Differences in the mean scores on interdependent identification as a function of group type.

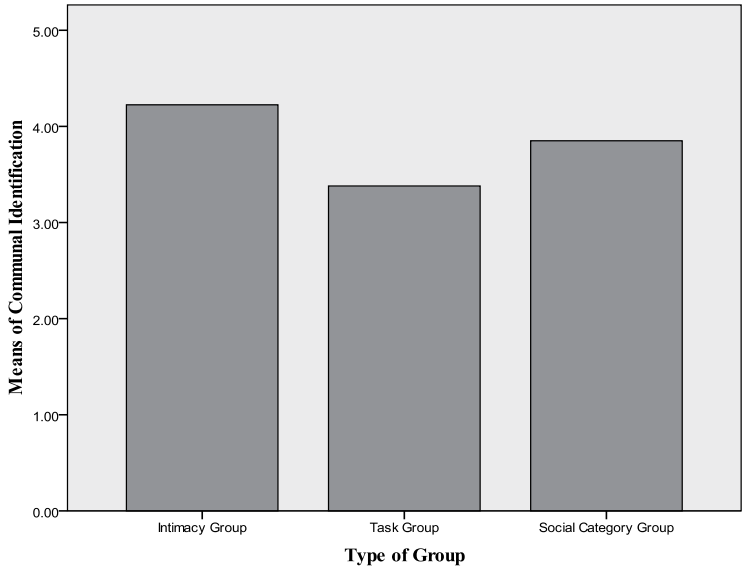

Fig. 3. Differences in the mean scores on communal identification as a function of group type

DISCUSSION

The group type hypothesis. The main aim of this study was to investigate the impact that thinking about different types of group has on different types of ingroup identification. We expected that (a) identifying with social category groups would be associated with a relative increase in participants' social identification, (b) identifying with task groups would be associated with a relative increase in participants' interdependent identification, and (c) identifying with intimacy groups would be associated with a relative increase in participants' communal identification. The results supported the initial findings from the analyses conducted in the preliminary studies and confirmed the above hypotheses. People who thought about social category groups showed significantly higher social identification than people who thought about intimacy group or task group. This means that people were more prone to perceive themselves as more typical and interchangeable members of their group (i.e., social identification) in groups that were relatively large, long-lasting, more abstract, and generally low in interaction (i.e., social category groups).

People who thought about task groups showed significantly higher interdependent identification than people who thought about intimacy groups. These results mean that people were more prone to perceive themselves as having instrumental, exchange based relationships with other group members (i.e., interdependent identification) in groups that are relatively small, of modest duration, fairly high in interaction and have shared common outcomes between members (i.e., task groups). However, it should be noted here that the above conclusion was found to be valid only in comparison to intimacy groups; the difference between participants' interdependent identification with task and with social category groups was not significant. Moreover, given that the data revealed a significantly higher interdependent identification with social category groups than with intimacy groups, social category groups might also been seen as enhancing exchange based form of identification when compared to intimacy groups.

Finally, people who thought about intimacy groups showed significantly higher communal identification than people who thought about task groups or social category group. This means that people were more prone to perceive themselves to be in very close communal relationships that involve empathy and carrying for the other group members (i.e., communal identification) in groups that are usually small, long lasting, very high in interaction, and difficult to join or leave (i.e., intimacy groups). In addition, participants' communal identification with social category groups was significantly stronger than their communal identification with task groups. This last result shows that compared to both, intimacy and social category groups, identification with task groups involves less close relationships between the group members.

The interpretation of the above results, however, does not imply that identifying with one specific group will involve only one type of identification. It means that identifying with a group will boost the type of identification that is primarily

associated with that group's type and this specific type of identification will become stronger than the others. In some cases, this apparent increase could be due to decreases in other types of identification. For example, identifying with an intimacy group would boost one's communal identification but it would also probably lead to the decrease in one's interdependent identification with that same group. Consistent with this idea, the results of the preliminary studies revealed a significant negative correlation between communal and interdependent identification.

Overall, the fact that participants' social, communal, and interdependent identification were found to increase in strength separately from each other depending on the type of social group that was made salient confirmed the validity of these constructs and supported the distinction between them. Consistent with predictions, this study's findings showed that different types of groups are significantly connected with different types of ingroup identification. Identifying with a particular type of group usually enhanced only one type of identification that is most strongly related to the type of group in question. Further research in this direction could explore the interesting fact that social category groups in this study are found to be most closely related to participants in terms of depersonalization but at the same time these groups appear to have less identity value and are less assessable when compared to intimacy and task groups

Study limitations. Two limitations of the present research should be pointed out. First, a relatively large number of participants did not follow the study's main instruction to think about an exact type of group. Although an explanation of the used group typology (intimacy, task, social category) was given, those participants considered a group that was not of the group type they were asked to think about. Consequently, we excluded data from 48 participants from our main analyses. One of the reasons for this problem could be that the instructions for the study were not clear enough, and some participants had problems understanding and following them. Another possibility is that the task was not as easy as it was supposed to be and, for some reason, participants found it difficult to think about certain types of groups (social categories in particular). In support of the last assumption, in a group listing experiment, Lickel et al. (2000) found that participants in their study listed intimacy and task groups much more frequently than social category groups. In addition, social category groups were listed at later point, after intimacy and task groups. In order to avoid similar problems, in the subsequent study presented in this work participants will be provided with a specific group to think about. This group will be clearly identifiable as being either, social category, intimacy or task group.

The second limitation concerns the size of the sample that had been employed in this study. The current research reports results of analyses that use data from 81 participants and therefore some of the findings need to be treated with caution. It is commonly accepted that larger samples are needed to obtain greater statistical power. Therefore, a relatively bigger sample of participants needs to be recruited in further studies.

Previous Investigations of the Group Type Hypothesis

Membership in social groups is an important part of one's self definition (Deaux et al., 1995). It is agreed in the psychology literature that social groups differ in many aspects and possess diverse identity functions. However, no research has particularly focused on the relationship between different types of ingroup identification and a variety of distinct types of social groups.

Study 1 of the present work was specifically designed to assess the relationships between different types of groups and four different types of ingroup identification. Participants in this study were randomly assigned to one of three group type conditions: intimacy group, task group, and social category group. They were then asked to think about only one group that represented the specific group type condition to which they had been allocated. This procedure allowed a more controlled and precise analysis of the effects that thinking about different types of groups has on different types of ingroup identification.

The results of Study 1 supported preliminary findings and were consistent with all three predictions in the group type hypothesis. In particular, people who thought about an intimacy group showed significantly higher communal identification than people who thought about a task or social category group. Furthermore, people who thought about a task group showed significantly higher interdependent identification than people who thought about an intimacy group. Finally, people who thought about a social category group showed significantly higher social identification than people who thought about an intimacy or task group.

However, there was one limitation of Study 1 that needed to be carefully considered. A relatively large number of participants did not understand or had difficulties following the study's main instruction to think about one group from the group type they were given. For example, participants who were asked to think about one of their social category groups (e.g., gender, religion), reported that they would think about a task group (e.g., work colleagues, sport team) when completing the questionnaire. As a consequence of this, 48 participants were excluded from the analyses because their responses to the manipulation check item indicated that they considered a group that was not representative of the group type that they were asked to think about. The exclusion of these 48 participants resulted in a lost of statistical power.

The Present Study

This study is another, more precise, investigation of the hypothesis that thinking about different groups would be more or less associated with different types of ingroup identification. It was designed to overcome the problems encountered in

Study 1 and aimed to provide clearer and stronger evidence for the expected relationships between particular types of groups and particular types of ingroup identification. The research instructions and task were made easier for participants to understand and follow. Instead of assigning participants to one of the three broader group type conditions and then asking them to think about a group of this type, participants were simply given a group of a particular type for consideration.

Following Wells and Windschitl's (1999) advice regarding stimulus sampling, we selected two specific social groups to represent each of three main group types that were investigated: Age group and gender group represented large-scale social categories, family and group of friends represented intimacy groups, and course and university represented task-based groups. This approach was intended to unconfound the idiosyncrasies of the specific groups that we used from the broader group type that each group was intended to represent (i.e., sampling more than one stimulus to represent the independent variable). Consistent with Study 1, the group types and the specific groups that represented each group type were based on theory and research by Lickel et al. (2000, 2006).

In addition to the above methodological changes, we made a few alterations to the version of the CSCIIS that was used in this study. In order to have an equal number of items in all subscales and to make the overall scale slightly shorter and quicker to complete, we used a 16-item version of CSCIIS that excluded items measuring global identification and two of the four salience items associated with centrality. Finally, the previously used 5-point Likert-type response scale was replaced with a 7-point scale of the same type in order investigate the internal reliability of the CSCIIS with different response scales.

Method

Participants. During a two-week period, we collected data from 336 participants. All participants were first year undergraduate psychology students at the University of Newcastle, Australia and all of them received course credit for their participation in the research. Nineteen participants indicated that they did not want their responses to be included in the analysis. The data from these 19 participants was deleted. Hence, in this study we analyzed the data from 317 participants.

Participants were 63 men and 254 women with an average age of 23.33 (SD = 8.55). Fifty one participants were assigned to think about their age group, 51 to think about their gender group, 58 to think about family group, 56 to think about a group of friends, 52 to think about their course, and 49 to think about the university.

Procedure and measures. The study was presented on the internet using computer-based software. Participation was anonymous. All participants completed a single questionnaire consisting of the 16-item version of the CSCIIS. At the beginning of the research, a computer program randomly assigned participants to one of six experimental conditions (age group, gender group, family, group of friends,

course, and university). Participants in different conditions responded to different versions of the CSCIIS. Each version differed with respect to the type of group that was referred to as the target group in each CSCIIS statement.

Participants were provided with one of six sets of instructions depending on the condition to which they had been randomly allocated. Each set of instructions asked participants to consider only one particular group (i.e., gender group, group of friends, psychology course) when answering the questionnaire. The study took approximately 20 minutes to complete. Participants responded to all statements using a 7-point Likert-type scale (1 = *Strongly Disagree*, 4 = *Neutral*, 7 = *Strongly Agree*) and then provided their age and gender.

Results

To investigate the impact that thinking about different types of group had on different types of ingroup identification, we conducted two separate series of one-way between-subject ANOVAs. For the first set of analyses, we coded each of the six different groups in the study condition according to their broader group type category. Family and friends were coded as intimacy groups, age group and gender were coded as social category groups, and course and university were coded as task groups. We refer to this set of analyses as involving *broad group type*. For the second set of analyses, we used all six specific groups without further coding. We refer to this second set of analyses as involving *specific group type*. For both sets of analyses, we conducted a series of one-way between-subject ANOVAs with group type as the independent variable and each type of identification as a dependent variable.

Broad group type. First, there was a significant effect of broad group type on communal identification, $F(2, 314) = 38.52$, $p < .01$, $\eta_p^2 = .20$. For further analysis we used Fisher's (1935) Least Significant Difference post-hoc tests. Consistent with predictions and Study's 1 findings, the results showed that participants who thought about intimacy groups had significantly higher communal identification ($M = 5.76$) than participants who thought about task groups ($M = 4.60$; $p < .01$) or social category groups ($M = 5.27$; $p < .01$). The results also showed that participants who thought about social category groups had significantly higher communal identification ($M = 5.27$) than participants who thought about task groups ($M = 4.60$; $p < .01$). Figure 4 illustrates the mean scores on communal identification for the three different types of groups.

Second, there was a significant effect of broad group type on centrality, $F(2, 314) = 13.78$, $p < .01$, $\eta_p^2 = .05$. Levene's test for homogeneity of variances revealed a significant violation of the assumption of homogeneity of variance ($p = .05$). Therefore, we used Games-Howell's post hoc test in our follow-up analyses because it is designed for situations in which there are unequal variances and unequal sample sizes. The results showed that participants who thought about social category groups scored significantly lower on centrality ($M = 3.88$) compared to participants who thought about intimacy groups ($M = 4.52$; $p < .01$) and task

groups (M = 4.50; p < .01). There was no significant difference in centrality ratings between participants who thought about intimacy groups and participants who thought about task groups. Figure 5 illustrates the mean scores on centrality for the three different types of groups. The effects of broad group type on social identification and on interdependent identification were not significant (ps > .40).

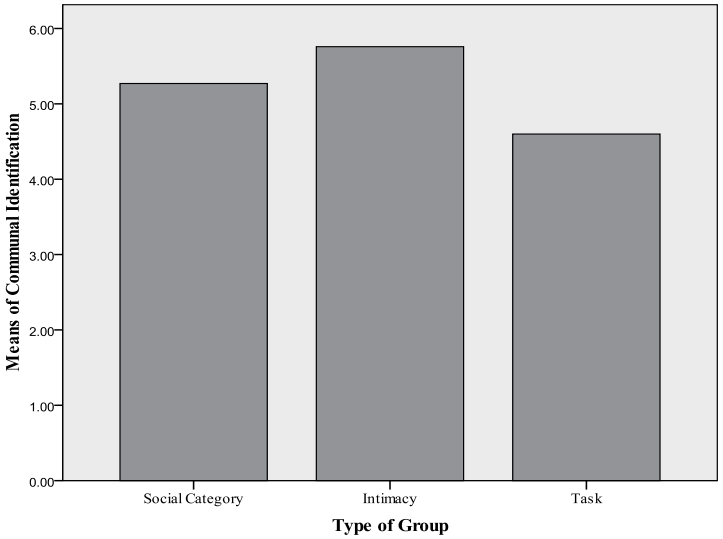

Fig.4. Differences in the mean scores on communal identification as a function of broad group type.

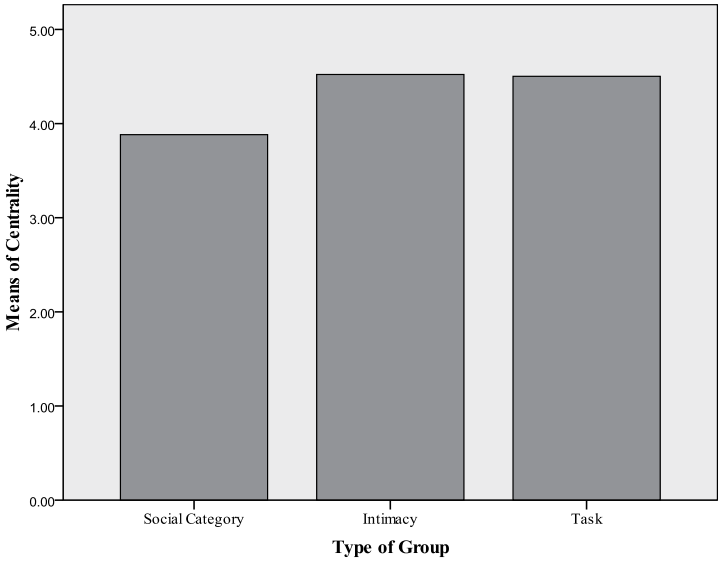

Fig. 5. Differences in the mean scores on centrality as a function of broad group type.

Specific group type. In a second series of ANOVAs, we used all six different groups as an independent variable and each of the investigated types of ingroup identification as dependent variables. Consistent with the broad group type analyses, there was a significant effect of specific group type on communal identification, $F(5, 311) = 15.36$, $p < .01$, $\eta_p^2 = .20$. For further analysis, we used Fisher's (1935) Least Significant Difference post-hoc tests. Consistent with predictions, participants who thought about their family group ($M = 5.74$) had significantly higher communal identification than participants who thought about their age group ($M = 5.29$; $p = .02$), gender group ($M = 5.25$; $p = .01$), course group ($M = 4.55$; $p < .01$), or university group ($M = 4.65$; $p < .01$). Furthermore, participants who thought about their group of friends ($M = 5.78$) had significantly higher communal identification than participants who thought about their age group ($M = 5.29$; $p < .01$), gender group ($M = 5.25$; $p < .01$), course group ($M = 4.55$; $p < .01$), or university group ($M = 4.65$; $p < .01$). Consistent with the assumption that family and group of friends provided comparable representations of intimacy groups, there was no significant difference in communal identification between participants who thought about their family ($M = 5.74$) and group of friends ($M = 5.78$, $p = .81$).

Interestingly, we also found a significant difference in communal identification between participants who thought about either of the social category groups (i.e., gender and age) and either of the task groups (i.e., course and university). Participants who thought about their age group had significantly higher communal identification ($M = 5.29$) than participants who thought about their course ($M = 4.55$; $p < .01$) and university ($M = 4.65$; $p < .01$). Participants who thought about their gender group also had significantly higher communal identification ($M = 5.25$) than participants who thought about their course ($M = 4.55$; $p < .01$) and university ($M = 4.65$; $p < .01$). No other significant differences in participants' communal identification were found ($ps > .58$). Figure 6 illustrates the mean scores on communal identification for each of the six different groups.

There was also a significant effect of specific group type on centrality, $F(5, 311) = 12.52$, $p < .01$, $\eta_p^2 = .17$. Levene's test for homogeneity of variances revealed a significant violation of the assumption of homogeneity of variances ($p < .01$). Therefore, we used Games-Howell's post hoc test in our follow-up analyses. The results showed that participants who thought about their family ($M = 5.11$) scored significantly higher on centrality than participants who thought about their age group ($M = 3.47$; $p < .01$), gender group ($M = 4.29$; $p = .01$), course group ($M = 4.40$; $p = .04$), and group of friends ($M = 3.91$; $p < .01$). However, participants who thought about their group of friends ($M = 3.91$) scored significantly lower on centrality than participants who thought about their university ($M = 4.61$; $p < .01$). There was also a significant difference in centrality between participants who thought about their family ($M = 5.11$) and their group of friends ($M = 3.91$, $p < .01$). In addition, participants who were asked to think about their age group ($M = 3.47$) scored significantly lower on centrality than participants who thought about their

course (M = 4.40; p < .01), university (M = 4.61; p < .01), and gender group (M = 4.29; p = .02). No other significant effects of different groups on centrality were found (ps > .16). Figure 7 illustrates the mean scores on centrality for each of the six different groups.

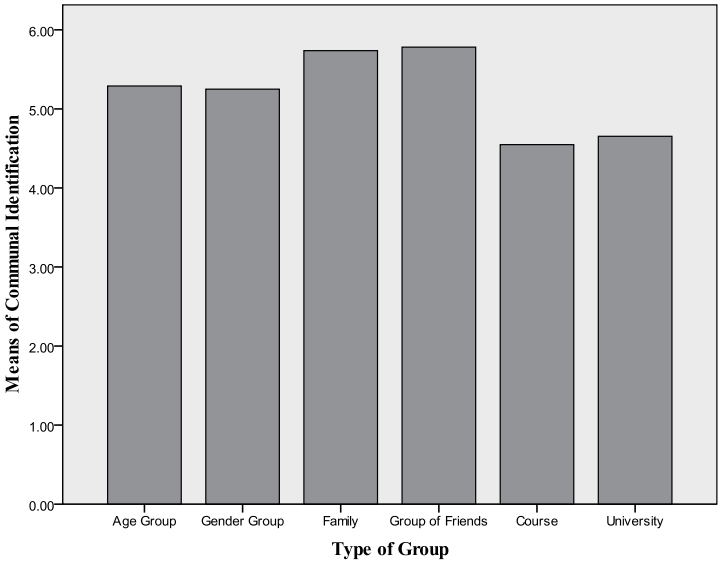

Fig. 6. Differences in the mean scores on communal identification as a function of specific group type.

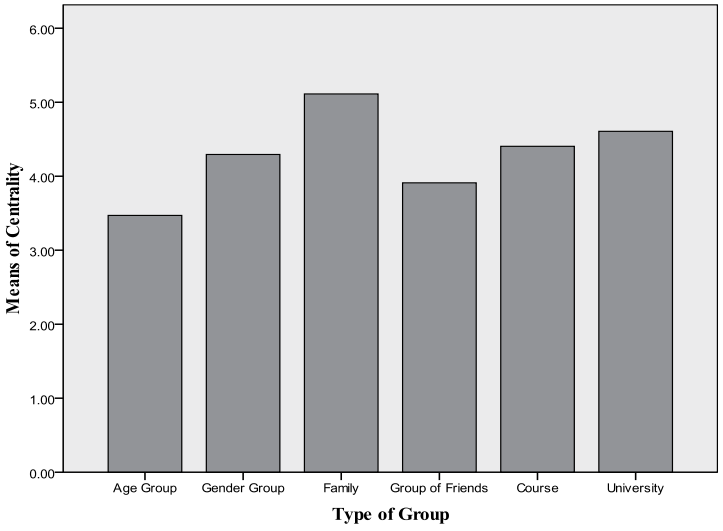

Fig. 7. Differences in the mean scores on centrality as a function of specific group type.

Finally, the results showed a significant effect of specific group type on social identification, $F(5, 311) = 2.29$, $p = .04$, $\eta_p^2 = .04$. For further analysis, we used Fisher's (1935) Least Significant Difference post-hoc tests. Consistent with predictions, the results showed that participants who thought about their gender group had significantly higher social identification ($M = 3.98$) compared to participants who thought about their group of friends ($M = 3.44$, $p = .03$) or their course group ($M = 3.34$, $p < .01$). Interestingly, participants who thought about their gender group also had significantly higher social identification ($M = 3.98$) than participants who thought about their age group ($M = 3.25$, $p < .01$). This last result indicated an unexpected divergence between the two groups that we had selected to represent social categories. No other significant differences in social identification as a function of different groups were found ($ps > .10$). Figure 8 illustrates the mean scores on social identification for each of the six different groups.

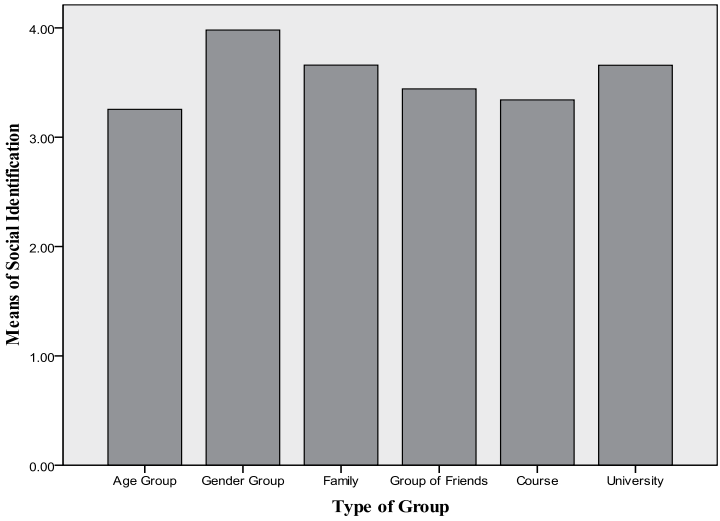

Fig. 8. Differences in the mean scores on social identification as a function of specific group type.

Discussion

The group type hypothesis. The main purpose of this study was to investigate the relationship between different types of groups and different types of ingroup identification. The results fully supported Study 1's findings related to communal identification. As expected, participants in the broader intimacy group condition (family and group of friends) showed significantly higher communal identification than participants in the broader social categories condition (gender and age) or the task group condition (course and university). The second analysis that used the six

specific groups as an independent variable revealed that participants who thought about their family or their friends scored significantly higher on communal identification than participants who thought about any of the other four groups. This supported the initial idea that communal identification is primarily associated with intimacy groups, and identifying with such a group/s will significantly enhance only this particular type of identification in comparison to the others.

The pattern of results for social identification was not as clear as the pattern for communal identification. The effect of broad group type on social identification was not significant. However, the specific group type analysis provided partial support for predictions concerning social identification. Consistent with these predictions, participants who thought about their gender group had significantly higher social identification than participants who thought about either their group of friends or their course. Surprisingly, the results also showed higher social identification with gender groups compared to age groups. Such findings suggest that these two groups were not equally representative of social categories, at least in terms of the social identification that they promote. This divergence between gender and age groups may explain the null findings in the broad group type analysis, where these two group types were coded as social categories. Future research may wish to consider an alternative representative to age as an instance of a social category (such as race or religion for example).

In addition to the above findings related to social and communal identification, the current study revealed a significant effect of group type on centrality. These findings suggest that some types of groups are more or less salient than others, and that people usually perceive these groups as more or less important for the self. In particular, participants in the broader social category group condition scored significantly lower on centrality than participants who thought about intimacy or task groups. This result is consistent with Lickel et al.'s (2000) findings which showed that people valued their memberships in a social category groups less than their memberships in task or intimacy groups.

In summary, the results of the current study confirmed our prior findings that identifying with a group of a particular type will usually account for an increase of one particular type of ingroup identification. Participants' communal and, in most cases, social identification were once again found to be significantly higher with intimacy and social category groups respectively. Although no evidence for the previously detected significantly stronger interdependent identification with task groups (Study 1) was found in this study, the present results are largely consistent with the predictions of the group type hypothesis.

Study limitations. Two limitations of the current research should be considered. One limitation concerns the specific groups that were selected to represent the three broader group types. It was initially assumed that both groups in each pair will be equally representative of one broader group type. However, there were some discrepancies in the results particularly related to the type of ingroup identifi-

cation that some of these specific groups promoted. Future research might need to select a wider range of groups to represent each category.

Second, we should note here that Lickel et al. (2000) listed „students at a university" as a loose association group. However, given the student sample of participants employed in this study, we believed that this specific group is better conceived as a task group. Unlike Lickel et al.'s (2000, 2006) definition that loose associations groups are of short duration, have transient importance and are limited in focus, the university for a university student is relatively long-lasting, fairly important, and mainly task oriented social unit. Hence, in this particular study, university was used as representative of the task group category. In support of this decision, the results of the analyses showed that participants who thought about their university scored significantly higher on centrality than participants who thought about their group of friends. Such findings suggest that university was perceived to be more than simply loose association group.

GENERAL DISCUSSION

A key aim of the present research was to investigate whether the variety of social groups that shape individuals' social life would be associated with variations in manifested types of ingroup identification. Lickel et al. (2000) proposed that people generally distinguish between social categories (e.g., nationality, religion), intimacy groups (e.g., family, close friends), and task groups (e.g., juries, study groups). In a comparison of identification among intimacy, task, and social category groups, Johnson et al. (2006) found that „all three group types served identity needs equally well" (p. 717). However, one important question stemming from this line of research was whether or not the same mechanisms underlie identification with different types of social groups. Researchers have suggested that type of identification may differ between groups and that individuals' identification profiles may be different for each group that they consider to be relevant for themselves (Leach et al., 2008; Roccas et al., 2008). The majority of previous research in the area, however, has assessed global group identification in general or different types of identification in relation to broad, category-based social groups. In contrast, our research looked at four different types of group identification and examined their variations as a function of three particular group types that differed in a number of characteristics.

We proposed that identifying with different types of social groups would be associated with higher levels of particular types of ingroup identification with these groups. More specifically, we hypothesized that people would have stronger social identification with social category groups, stronger communal identification with intimacy groups, and stronger interdependent identification with task groups. The results of preliminary tests of the above hypotheses confirmed prediction with regards to communal and interdependent identification. Scores on communal identification were positively correlated with the extent to which participants thought

about intimacy groups and scores on interdependent identification were positively correlated with the extent to which participants thought about task groups. Thinking about intimacy groups was also positively correlated with centrality. However, there were some discrepancies in the findings. This was probably because or preliminary tests were not specifically designed to investigate the type of group-type of identification relationship and at the moment of assessment participants in each study thought about at least three groups of different types. In contrast, the primary aim of Studies 1 and 2 reported in this paper, was to examine the effects that particular types of groups had on particular types of ingroup identification. Once again, however, the findings slightly differed between the two studies. The results of Study 1 supported all initial hypotheses regarding social, communal and interdependent identification. Unexpectedly, the results of Study 2 fully supported predictions only in relation to centrality and communal identification and partially supported predictions concerning social identification.

However, despite the lack of full consistency across studies with regards to centrality and interdependent identification, the research provided sufficient evidence to conclude that the manifestation of different types of identification varies as a function of the type of group that is most salient at the particular moment. The results could be seen as compatible with the idea that groups often serve a variety of identity functions (Aharpour & Brown, 2002), and one group might have a different role and meaning for the identifying individuals. Hence, depending on the particular situation, it is sometime possible that people identify in a relatively different way with groups of the same type (Roccas et al., 2008). For example, an age group for an undergraduate student might include some of his/her friends, making it both a social category and an intimacy group. Such a possibility would make identification with that group a complex manifestation of more than one type of ingroup identification (i.e., social and communal in this case). In support of this assumption, participants (all undergraduate students) who thought about social category groups (age and gender) in Study 2 had significantly higher communal identification than participants who thought about task groups. Similar interactions between social context and other particular groups in the student sample of Study 2 could possibly explain the discrepancies between the results of the two studies that specifically tested the type of group hypothesis.

Past research in this area has focused on the properties and functions of different types of groups and investigated their relations with various processes and phenomena such as self-esteem, intergroup conflict, discrimination, prejudice, and group identification in general (e.g., Aharpour & Brown, 2002; Deaux et al., 1995; Johnson et al., 2006; Lickel et al., 2006, Prentice, Miller, & Lightdale, 1994). However, to our knowledge, the present work is the first to explore the link between particular types of groups and four distinct types of ingroup identification. The results demonstrated the important role that type of group can play in promoting different mechanisms of identification with the ingroup.

REFERENCES

Aharpour, S., & Brown, R. (2002). Functions of group identification: An exploratory analysis. *Revue Internationale de Psychologie Sociale, 15,* 157–186.

Brewer, M. B. (2004). Taking the Social Origins of Human Nature Seriously: Toward a More Imperialist Social Psychology. *Personality and Social Psychology Review, 8*, 107–113.

Carporael, L., & Brewer, M. (1995). Hierarchical evolutionary theory: There *is* an alternative and it's not creationism. *Psychological Inquiry, 6,* 31–34.

Clark, M., & Mills, J. (1993). The difference between communal and exchange relationships: What it is and is not. *Personality and Social Psychology Bulletin, 19*, 684–691.

Clark, M., & Mills, J. (1979). Interpersonal attraction in exchange and communal relationships. *Journal of Personality and Social Psychology, 37,* 12–24.

Deaux, K., Reid, A., Mizrahi, K., & Ethier, K. A. (1995). Parameters of social identity. *Journal of Personality and Social Psychology*, 68, 280–291.

Fiske, A. P. (1991). Structures of social life: The four elementary forms of human relations: Communal sharing, authority ranking, equality matching, market pricing. New York: Free Press.

Johnson, A., Crawford, M., Sherman, S., Rutchick, A., Hamilton, D., Ferreira, M., & Petrocelli, J. (2006). A functional perspective on group memberships: Differential need fulfillment in a group typology. *Journal of Experimental Social Psychology, 42,* 707–719.

Leach, C., van Zomeren, M., Zebel, S., Vliek, M. L., Pennekamp, S. F., Doosje, B., et al. (2008). Group-level self-definition and self-investment: A hierarchical (multicomponent) model of in-group identification. *Journal of Personality and Social Psychology, 95*, 144–165.

Lickel, B., Hamilton, D. L., Wieczorkowska, G., Lewis, A., Sherman, S. J., & Uhles, A. N. (2000). Varieties of groups and the perception of group entitativity. *Journal of Personality and Social Psychology, 78,* 223–246.

Lickel, B., Rutchick, A. M., Hamilton, D. L., & Sherman, S. J. (2006). Intuitive theories of group types and relational principles. *Journal of Experimental Social Psychology, 42,* 28–39.

Milanov, M., Rubin, M., & Paolini, S. (2010). Different types of ingroup identification as a function of culture, group status, attachment style, and group type. *Australian Digital Theses*. http://hdl.handle.net/1959.13/44661.

Mills, J. & Clark, M., S. (1994). Communal and exchange relationships: Controversies and research. In R. Erber, & R Gilmour (Eds), *Theoretical frameworks for personal relationships* (pp. 29–42). Hillsdale, NJ: Lawrence Erlbaum.

Pickett, C., Silver, M., & Brewer, M. (2002). The impact of assimilation and differentiation needs on perceived group importance and judgments of ingroup size. *Personality and Social Psychology Bulletin, 28,* 546–558.

Prentice, D., Miller, D., & Lightdale, J. (1994). Asymmetries in attachments to groups and to their members: Distinguishing between common-identity and common-bond groups. *Personality & Social Psychology Bulletin, 20*, 484–493.

Roccas, S., Sagiv, L., Schwartz, S., Halevy, N., & Eidelson, R. (2008). Toward a unifying model of identification with groups: Integrating theoretical perspectives. *Personality and Social Psychology Review, 12*, 280–307.

Wells, G. L., & Windschitl, P. D. (1999). Stimulus sampling and social psychological experimentation. *Personality and Social Psychology Bulletin, 25*, 1115–1125.

Wilder, D., & Simon, A. F. (1998). Categorical and dynamic groups: Implication for social perception and intergroup behavior. In C. Sedikides, J. Schopler, & C. Insko (Eds.), *Intergroup cognition and intergroup behavior* (pp. 27–44). Mahwah, NJ: Erlbaum.