

**Different Types of Ingroup Identification as a Function
of Culture, Group Status, Attachment Style, and
Group Type**

Milen Toshev Milanov

MA (Psych)

Submitted for the degree of Doctor of Philosophy

October 2009

STATEMENT OF ORIGINALITY

This thesis contains no material which has been accepted for the award of any other degree or diploma in any university or other tertiary institution and, to the best of my knowledge and belief, contains no material previously published or written by another person, except where due reference has been made in the text. I give consent to this copy of my thesis, when deposited in the University Library, being made available for loan and photocopying subject to the provisions of the Copyright Act 1968.

I hereby certify that the work embodied in this thesis is the result of original research.

.....

Milen Toshev Milanov

ACKNOWLEDGEMENTS

The present work was made possible with an International Postgraduate Research Scholarship and a University of Newcastle Postgraduate Research Scholarship. Studies 1 and 2 were additionally funded by a research grant from the John and Daphne Keats Endowment Research Fund.

I would like to express my profound gratitude to my primary supervisor, Dr Mark Rubin, for his guidance, immense support, constructive criticism, and infinite patience throughout all stages of this research. I would also like to thank my secondary supervisor, Dr Stefania Paolini, whose encouragement and valuable feedback on the drafts of this thesis were very helpful.

Finally, I would like to thank my wife Valentina and my two little girls Rosi and Iva who always managed to cheer me up somehow after the long days and nights of work on my PhD.

TABLE OF CONTENTS

STATEMENT OF ORIGINALITY	ii
ACKNOWLEDGEMENTS	iii
TABLE OF CONTENTS	iv
LIST OF TABLES	viii
LIST OF FIGURES	ix
SYNOPSIS	1
CHAPTER ONE: LITERATURE REVIEW AND GENERAL INTRODUCTION	2
Overview	2
A Literature Review of Models of Ingroup Identification	2
The Concept of Group Identification in Social Psychology Research.....	2
Distinguishing Five Key Types of Ingroup Identification in the Literature	17
A Theoretical Analysis of Centrality, Social, Communal, and Interdependent Identification	21
Centrality.....	21
Social Identification	22
The Distinction Between Communal and Interdependent Identification.....	23
Communal Identification	25
Interdependent Identification	29
Summarizing the Four Types of Ingroup Identification That I Investigate	34
Measuring the Four Different Types of Ingroup Identification	35
Different Types of Ingroup Identification as a Function of Culture, Gender, Ingroup Status, Attachment Style, and Group Type.....	37
Cross-Cultural Differences in Types of Ingroup Identification	37
Gender Differences in Types of Ingroup Identification.....	40
Group Status and Different Types of Ingroup Identification	41
Relationship Attachment Style and Different Types of Ingroup Identification.....	43
Different Types of Groups and Different Types of Ingroup Identification	46
Summary of Hypotheses and Layout of the Present Work.....	50
CHAPTER TWO: CONSTRUCTING THE CENTRALITY, SOCIAL, COMMUNAL, AND INTERDEPENDENT IDENTIFICATION SCALE	55
Overview	55
Introduction	55
Method	58
Overview	58
Participants.....	58
Measures	59
The Centrality, Social, Communal and Interdependent Identification Scale.....	59
Self-Construal Measures	62
Measures of Orientation Toward Relationships.....	63
Self-Esteem Measure	64
Procedure.....	64
Results	66
Factor Analysis and CSCIS's Psychometric Properties	66
The Revised CSCIS	70

Reliability and Interitem Correlations.....	72
Convergent and Divergent Validity	72
Type of Group and Type of Identification	75
Variations in CSCIIS Subscales as a Function of Gender and Culture.....	77
Discussion	80
Validity and Reliability of the CSCIIS	80
Gender Differences in Types of Identification.....	82
Cross-Cultural Differences in Types of Identification.....	83
Type of Group and Different Types of Ingroup Identification	84
Study Limitations	84
Summary	85
CHAPTER THREE: TYPES OF INGROUP IDENTIFICATION AS A FUNCTION OF CULTURE AND INGROUP STATUS.....	86
Overview	86
Introduction	86
Re-examining the Factor Structure of the CSCIIS.....	86
Re-examining Cross-Cultural Differences in Identification	87
Examining the Effects of Ingroup Status on Different Types of Identification.....	87
Method	90
Participants and Design.....	90
Procedure.....	91
Results	94
Factor Analysis	94
Reliability and Interitem Correlations.....	96
Convergent Validity	98
Variations in CSCIIS as a Function of Culture and Ingroup Status.....	98
Results Based on Nationality	99
Results Based on Country of Origin	99
Results Based on Cultural Background	100
Results Based on Language	102
Results Based on the Combined Index of Westernness	102
Discussion	104
Factor Structure of the CSCIIS	104
Cross-Cultural Variations in Type of Identification	105
The Effect of Ingroup Status on Different Types of Identification.....	106
Study Limitations	108
Summary	109
CHAPTER FOUR: ADULT ATTACHMENT STYLES AS PREDICTORS OF DIFFERENT TYPES OF INGROUP IDENTIFICATION	111
Overview	111
Introduction	111
Relationships Attachment Styles and Types of Identification	111
Investigating the Factor Structure of CSCIIS	113
Gender and Cross-Cultural Variations in Types of Identification	114
The Type of Group –Type of Identification Relationship	114
CSCIIS’s Construct Validity.....	114
Method	115
Participants.....	115
Procedure and Measures	115

The Balanced Inventory of Desirable Responding (BIDR)	116
Measures of Identification Components	117
Measure of Relationship Attachment Style.....	117
Results	118
Factor Analysis	118
Reliability and Interitem Correlations.....	121
Construct Validity	123
Correlations Within the CSCIIS.....	123
Correlations Between CSCIIS and Other Identification Subscales	123
Correlations Between the CSCIIS and BIDR	127
Gender and Cross-Cultural Variations in Types of Identification	127
Type of Group and Type of Identification	128
Attachment Style and Types of Identification	130
Discussion	133
Validity of the Different Types of Ingroup Identification	133
Gender and Cross-Cultural Variations in Types of Identification	134
Type of Group and Type of Identification	135
Type of Attachment Style as a Predictor of Type of Identification	136
Study Limitations	137
Summary	138
 CHAPTER FIVE: THE RELATIONSHIP BETWEEN DIFFERENT TYPES OF GROUPS AND DIFFERENT TYPES OF INGROUP IDENTIFICATION.....	140
Overview	140
Introduction	140
The Group Type Hypothesis	140
Previous Studies	145
The Present Research	145
Factor Structure of CSCIIS	146
Method	146
Participants.....	146
Procedure and Measures	147
Results	148
Factor Analysis	148
Reliability and Interitem Correlations.....	153
Gender Differences in Types of Identification.....	153
Testing the Group Type Hypothesis	153
Discussion	157
Factor Structure of the CSCIIS	157
The Group Type Hypothesis	158
Study Limitations	160
Summary	161
 CHAPTER SIX: DIFFERENT TYPES OF INGROUP IDENTIFICATION AS A FUNCTION OF SPECIFIC TYPES OF GROUPS	162
Overview	162
Introduction	162
Previous Investigations of the Group Type Hypothesis.....	162
Studies 1 and 3	162
Study 4	163
The Current Study	164

Method	166
Participants.....	166
Procedure and Measures	166
Results	167
Factor Analysis	167
Reliability and Internal Consistency	171
Relationships Between Type of Group and Type of Identification	171
Broad Group Type.....	171
Specific Group Type	174
Discussion	178
Factor Structure of the 16-item Version of CSCIS.....	178
The Type of Group Hypothesis.....	178
Study Limitations	180
Summary	181
CHAPTER SEVEN: GENERAL DISCUSSION	182
Overview	182
The Distinction Between Centrality, Social, Communal, and Interdependent Identification	182
Measuring Different Types of Identification	183
Gender Differences in Types of Identification.....	185
Cross-Cultural Differences in Types of Identification.....	187
Group Status and Different Types of Ingroup Identification.....	190
Attachment Style and Different Types of Identification.....	192
Type of Group and Different Types of Ingroup Identification	194
Limitations	197
Implications and Directions for Further Research	200
Coda	205
REFERENCES.....	206
APPENDIXES	225
Appendix A	225
Appendix B	227

LIST OF TABLES

Table 1 <i>Comparison Between Criterion Eigenvalues From Parallel Analysis and the Eigenvalues From the Current Principal Axis Factor Analysis (Study1)</i>	68
Table 2 <i>Items and Factor Loadings of the CSCIIS After Item Reduction</i>	71
Table 3 <i>Correlations Between Established Measures and CSCIIS's Subscales</i>	73
Table 4 <i>Correlations Between Different Types of Groups and Different Types of Ingroup Identification</i>	77
Table 5 <i>Distribution of Western and non-Western Participants in Experimental Conditions Based on Each of the Cultural Items and the Index of Westernness</i>	91
Table 6 <i>Comparison Between Criterion Eigenvalues From Parallel Analysis and the Eigenvalues From the Current Principal Axis Factoring (Study 2)</i>	95
Table 7 <i>Items and Factor Loadings of the 20-Item Version of CSCIIS</i>	97
Table 8 <i>Comparison Between Criterion Eigenvalues From Parallel Analysis and the Eigenvalues From the Current Principal Axis Factoring (Study 3)</i>	120
Table 9 <i>Items and Factor Loadings of the 20-Item Version of CSCIIS</i>	122
Table 10 <i>Correlations Between Types of Identification and Established Measures of Different Identification Constructs</i>	125
Table 11 <i>Correlations Between Types of Groups and Types of Identification</i>	129
Table 12 <i>Comparison Between Criterion Eigenvalues From Parallel Analysis and the Eigenvalues From the Current Principal Axis Factor Analysis</i>	150
Table 13 <i>Items and Factor Loadings of the 20-Item Version of CSCIIS</i>	152
Table 14 <i>Comparison Between Criterion Eigenvalues From Parallel Analysis and the Eigenvalues From the Current Principal Axis Factor Analysis</i>	169
Table 15 <i>Items and Factor Loadings of the 16-Item Version of CSCIIS</i>	170

LIST OF FIGURES

<i>Figure 1. Eigenvalues as a function of factors extracted from the CSCIIS (Study 1)....</i>	67
<i>Figure 2. Eigenvalues as a function of factors extracted from the CSCIIS (Study 2)....</i>	94
<i>Figure 3. Eigenvalues as a function of factors extracted from the CSCIIS (Study 3)..</i>	119
<i>Figure 4. Differences in the mean scores on social identification as a function of attachment style.....</i>	131
<i>Figure 5. Differences in the mean scores on communal identification as a function of attachment style.....</i>	132
<i>Figure 6. Differences in the mean scores on interdependent identification as a function of attachment style</i>	133
<i>Figure 7. Eigenvalues as a function of factors extracted from the CSCIIS (Study 4) ..</i>	149
<i>Figure 8. Differences in the mean scores of social identification as a function of group type.....</i>	155
<i>Figure 9. Differences in the mean scores on interdependent identification as a function of group type.</i>	156
<i>Figure 10. Differences in the mean scores on communal identification as a function of group type</i>	157
<i>Figure 11. Eigenvalues as a function of factors extracted from the CSCIIS (Study 5)</i>	168
<i>Figure 12. Differences in the mean scores on communal identification as a function of broad group type.</i>	172
<i>Figure 13. Differences in the mean scores on centrality as a function of broad group type.....</i>	173
<i>Figure 14. Differences in the mean scores on communal identification as a function of specific group type.</i>	175
<i>Figure 15. Differences in the mean scores on centrality as a function of specific group type.....</i>	176
<i>Figure 16. Differences in the mean scores on social identification as a function of specific group type.</i>	177

SYNOPSIS

The present work is a project in social psychology that looks at four different types of ingroup identification and investigates their possible variations as a function of defining personal characteristics and group-related phenomena. Five studies provide evidence for the validity of a qualitative distinction between centrality, social, communal, and interdependent identification and examine the way in which culture, gender, group status, relationship attachment style, and group type predicted each type of identification with groups. The research employs a multi-sample approach and combines correlational, experimental, and quasi-experimental designs. Research data was collected using purpose-built questionnaires that included a newly constructed Centrality, Social, Communal and Interdependent Identification Scale (CSCIIS) together with previously validated measures. Participants from Western and non-Western cultural backgrounds showed dispositional differences in their preferred type of identification, and differed in the extent to which their identification was focused on the group as a whole or on the individual group members. The studies integrate social identity theory, self-construal, and behavioural interdependence ideas, suggesting that there are some types of ingroup identification that are primarily based on interpersonal processes and relationships between group members. The leading themes are those of the conceptual complexity in assessing individuals' identification with various social groups and the possibilities for deepening our understanding of the phenomenon by considering the key aspects that separate one type of ingroup identification from another. The results help bring clarity to a confusing literature dealing with ingroup identification and illustrate the value of a different level approach in the area.

CHAPTER ONE: LITERATURE REVIEW AND GENERAL INTRODUCTION

Overview

In the first part of this chapter, I review the relevant literature in order to establish that there is a general consensus about five key types of ingroup identification. In the second part of the chapter, I examine four of these five types in greater depth in order to carefully define the precise operationalisations of each type of ingroup identification that I will use in my research. Finally, in the third part, I consider how each of the four types of identification might vary as a function of gender, culture, group status, attachment style, and group type.

A Literature Review of Models of Ingroup Identification

The Concept of Group Identification in Social Psychology Research

How and why people identify with social groups is a key issue in social psychology, and one that is playing a very important role in understanding ingroup and intergroup relations (Cameron, 2004; Hogg & Abrams, 1990; Jackson & Smith, 1999; Miller & Brewer, 1986; Obst & White, 2005). As Jackson and Smith (1999) noted, “it is generally agreed that identifying with a group can significantly affect a person’s social behaviour” (p. 120). Membership in social groups does not only impact individuals’ judgements about fellow ingroup members, but also influences their perception of others in the society and affects their interpersonal relationships in the everyday life. Psychological variables such as emotional association, interdependence, ingroup favouritism, discrimination, and prejudice are often considered to be related to different facets of the identification process (Branscombe, Schmitt, & Harvey, 1999; Jackson & Smith, 1999, Tajfel & Turner, 1979) and therefore studying the core types of ingroup

identification could provide the foundation for future investigations about the mechanisms of the above phenomena in the group.

Over the years, research on ingroup identification has suggested and followed a wide range of different theoretical and methodological perspectives. Group identification is a central aspect of many theories within psychology, sociology, anthropology, organizational research, and related areas and has been found to be a core factor for explaining phenomena such as prejudice, collective self-esteem, social dominance orientation, ingroup favoritism, group cohesion, and intergroup bias. In many cases, however, this theoretical and methodological diversity has led to recurrent discrepancies and evoked conceptual confusion (Henry, Arrow & Carini, 1999).

Perhaps the most influential among all theoretical models of group identification and processes is social identity theory (SIT). The most cited definition of social identification has been provided by Tajfel (1978) in his elaboration of social identity theory (Tajfel & Turner, 1979). It states that social identity is “that *part* of an individual’s self-concept which derives from his knowledge of his membership of a social group (or groups) together with the value and emotional significance attached to that membership” (p. 63). Tajfel’s definition of social identification has been interpreted by Ellemers, Kortekaas and Ouwerkerk (1999) as integrating cognitive, evaluative, and affective (emotional) components. The cognitive component consists of the knowledge and awareness of the group membership (e.g., “I am Bulgarian”). The evaluative component consists of the positive or negative value of the group membership (e.g., “I like being Bulgarian”) and could sometimes be seen as based on social comparisons between one’s group and relevant outgroups (e.g., Brown, 2000). The affective component consists of the emotional significance or psychological centrality of the group membership (e.g., “Being Bulgarian is important to me”).

Despite Tajfel's (1978) explicit three-component view of identification, one of the disagreements in social identification research is whether identification is best conceived as occurring along one dimension or several distinct dimensions (e.g., Brown, Condor, Mathews, Wade, & Williams, 1986; Cameron, 2004; Ellemers et al., 1999; Hinkle, Taylor, Fox-Cardamone, & Crook, 1989; Karasawa, 1991; Kelly, 1988; Jackson & Smith, 1999). Brown et al. (1986) tested Tajfel's three-component view of social identity but found evidence to support a unidimensional model. The results of their study suggested that, although necessary, cognitive self-definition and emotional attachment are not sufficient to cause or elucidate the diversity of identification processes and group reactions. The scale that Brown et al. (1986) developed appears to be the most exploited measure of social identification to date and "research based on this scale or close variations tends to show social identity as a single dimension" (Obst & White, 2005, p. 69).

However, there is also some evidence for SIT's tridimensional conceptualization of identification. Using Brown et al.'s scale, Hinkle et al. (1989) found support for Tajfel's (1978) tripartite model. They identified three components: a cognitive factor, an affect factor, and a group dynamics factor. However, these three components appeared to intercorrelate considerably (r s ranging from .43 to .58) which, in specific contexts, could be taken as evidence for a one factor solution.

Ellemers et al. (1999) also reported three dimensions that jointly contribute to social identification: self-categorization, group self-esteem, and affective commitment to the group. All three dimensions were derived from Tajfel's (1978) definition of social identity and are consistent with Tajfel's (1978) tripartite model. Self-categorization represents the cognitive aspect of social identity and is measured by items that focus on perceived similarities with the other members of the group and the importance of one's

group membership (i.e., “I am like other members of my group” and “My group is important reflection of who I am”). Group self-esteem represents the evaluative aspect of identification and is measured with items that focus on individuals’ feelings about the group as a whole (i.e., “I feel good about my group” and “I have little respects of my group”). Finally, affective commitment to the group represents the emotional component of one’s identification with social groups and is measured with items that focus on individuals emotional involvement with the group (i.e., “I dislike being a member of my group” and “I would rather belong to another group”). In support of the above distinctions, the researchers showed that each of these three dimensions of identification was primarily related and shaped by particular group characteristics. Group self-esteem varied as a function of group status, group size affected self-categorization, and the affective commitment component was jointly influenced by group status and type of group membership (i.e., self-selected or imposed membership). However, despite the empirical evidence for the proposed three distinct components of identification, Ellemers et al. (1999) admitted that the group self-esteem and the affective components may often be found to covary and may overlap under specific circumstances. Moreover, some of the items used in their scale (i.e., I am like other members of my group) could sometimes be seen as tapping qualitatively different facets of ingroup identification such as individual self-stereotyping for example (see Leach et al., 2008).

In research focussing on team identification, Dimmock, Grove, and Eklund (2005) investigated the relation between cognitive, evaluative, and affective dimensions of social identity. The results of their two studies failed to establish a distinction between the cognitive and the evaluative components of identification because the items measuring these supposedly distinct constructs loaded on a single factor named

cognitive-affective identification. As emerged, this factor referred to self-categorization and depersonalization together with the affective significance of the group membership. In addition, items measuring the evaluative aspect of team identification split into two factors that reflected personal and perceived evaluation respectively.

Cameron (2004) demonstrated that social identification is best represented in terms of cognitive centrality, ingroup affect, and ingroup ties. Cognitive centrality refers to the salience of the group (how often one thinks about the group) together with the cognitive importance of the group for one's self-concept. Ingroup affect refers to the individual's positive evaluation of his/her membership in the group. Ingroup ties refer to the perception of being part of the social group, having bond with the people in that group, and feeling similar to the other group members. Cameron's (2004) three-factor model can be interpreted as partially supporting Tajfel's (1978) tripartite conceptualization of social identity (knowledge, value, and emotional significance). Knowledge and emotional significance are represented in Cameron's concept of centrality, and evaluation is represented in Cameron's concept of ingroup affect. However, Cameron's concept of ingroup ties appears to be an additional factor to those proposed by Tajfel and will be discussed later on in this chapter. In recent research, Obst and White (2005) tested the validity of Cameron's model and provided support for the hypothesized three-factor structure.

Bouas and Arrow (1996) acknowledged the relevance of the cognitive and affective elements of group identity but proposed a third, behavioural element that is different from the evaluative component previously discussed in the literature. Based on Bouas and Arrow's (1996) findings, Henry, Arrow and Carini (1999) drew a distinction between individual and group level identification and proposed a tripartite model that reflects the cognitive, affective and behavioral aspects of identification with small

interactive groups. More specifically, they defined group identification as “member identification with small interacting groups, which results from but is not identical to affective ties, cognitive categorization processes, and interdependent behavior and outcomes” (Henry et al., 1999, p. 568). Interestingly, the above three aspects of group identification have been considered to be conceptually different sources of identification rather than separate dimensions of one broader construct (Henry et al., 1999). Each of these distinct sources of ingroup identification was found to have its roots in different areas of social psychology research. The cognitive component reflects SIT’s idea of identification as self-categorization but is seen as occurring at the individual level. The affective component reflects the idea of interpersonal attraction in the cohesion literature and occurs at the interpersonal level of identity. The behavioral component unites the ideas of behavioral interdependence and shared outcomes as a source of group identification and is seen to be a group level construct. In many aspects, this behavioral component of identification is consistent with Brewer and Gardner’s (2006) relational level of the social self. This level represents a distinct representation of one’s identity that is characterized by a network of interpersonal relationships. However, as Brewer and Gardner (2006) defined it, relational identification is “the self concept derived from connections and role relationships with significant others” (p. 84). In contrast, Henry et al.’s (1999) behavioral interdependence focuses primarily on the group as a whole entity and is pitched at the group, rather than at the interpersonal, level of identification.

Other researchers have agreed with Tajfel (1978) that identification is a multidimensional construct, but have disagreed about the precise nature and number of the dimensions that are involved. Karasawa (1991) found two distinct dimensions of identification: identification with the group membership and identification with other

group members. Although the first dimension was considered to be conceptually overlapping with Tajfel's (1978) idea of social identification, an attempt to further extract separate cognitive and affective sub-dimensions proved to be unsuccessful. However, the fact that identification with the group and identification with the group members were shown to be clearly separated from one another supports Henry et al.'s (1999) assumption that identification at group level (i.e., social identification) is qualitatively distinct from identification at interpersonal level (i.e., identification based on members interdependence and specific relationships).

Sellers, Smith, Shelton, Rowley, and Chavous (1998) investigated four dimensions of African American racial identity: salience, centrality, regard, and ideology. In this study, salience referred to the relevance of one's (racial) identity for the self in a particular social context and time point. Centrality referred to the level of an individual's self-definition as a member of his/her group (race). The regard dimension related to the degree of positive or negative feeling about the group (race), and ideology comprised one's beliefs and attitudes as determined by his/her group (racial) affiliation. According to the authors, one specific limitation concerning the broader application of the above model is that the ideology dimension is particularly based on the specific historical and cultural background of African Americans. Therefore, the generalization of this dimension could be difficult for target groups other than the racial group targeted in Sellers et al.'s (1998) study (i.e., African Americans).

Jackson and Smith (1999) also proposed four dimensions of social identity: perception of the intergroup context, ingroup attraction, depersonalization, and interdependency beliefs. Their study focused on the distinction between secure and insecure types of identification as two specific configurations between the above four dimensions and investigated the impact that these constructs have on ingroup perception

and intergroup bias. Following SIT, perception of the intergroup context is based on the idea that part of ingroup identification is set in the background of ingroup/outgroup realities. More specifically, perception of intergroup context refers to “the extent to which an out-group is salient and perceived to have competitive rather than cooperative relations with the ingroup” (Jackson & Smith, 1999, p. 121). Ingroup attraction is the affective (emotional) component of social identity and is linked to the idea of group cohesion as an ingroup phenomenon. As Jackson and Smith (1999) defined it, attraction to the ingroup refers to the positive affect and the satisfaction associated with one’s group membership. The treatment of depersonalization as a separate factor of social identification has been primarily based on postulates and research in self-categorization theory (Turner, Hogg, Oakes, Reicher, & Wetherell, 1987). Self-categorization theory (SCT) is an extension of social identity theory that elaborates on the processes involved in social identification. According to SCT, depersonalization is the “shift towards the perception of self as an interchangeable exemplar of some social category and away from the perception of self as a unique person defined by individual differences from others” (Turner et al., 1987, p. 50-51). Building on this theoretical perspective, Jackson and Smith (1999) defined depersonalization in terms of seeing the self more as a group member than as an unique individual and suggested that this process is a primary dimension of individuals’ social identity.

Jackson and Smith’s (1999) fourth dimension of social identification is interdependency beliefs (or common fate). This fourth dimension seems to be quite different in nature than the other three and acknowledges the importance of members’ interdependence in group identity processes. However, the interdependency beliefs factor here reflects self-identity and self-interests as being principally determined by individuals’ group membership. Hence, in this study interdependence has been

investigated only in relation to the group and its features as a whole (common fate) and does not particularly consider identification processes based on interdependence between individual group members.

Taking into account Jackson and Smith's (1999) framework, Jackson (2002) identified four dimensions of group identification and investigated their relationship with intergroup attitudes. The proposed dimensions were: cognitive, affective, evaluative, and common fate. The cognitive dimension was primarily associated with the process of self-categorization and corresponds to Jackson and Smith's (1999) depersonalization factor. The affective dimension referred to individual's satisfaction from his/her group membership and the perception of belongingness to the group. It closely overlaps with Jackson and Smith's (1999) attraction to the ingroup factor. The evaluative dimension referred to the positive and negative feelings attached to the ingroup and can be linked to Ellemers et al.'s (1999) collective self-esteem factor of social identity. Finally, the perceived common fate dimension reflected the sense of having a psychological bond with the ingroup and is similar to Jackson and Smith's (1999) interdependency believes factor. However, the results of Jackson's (2002) analyses provided empirical evidence only for three (cognitive, affective, and evaluative) of the proposed four dimensions of group identification because items measuring common fate loaded on the affective factor. Such findings are consistent with Tajfel's (1978) tripartite view of social identity and question the validity of common fate as a distinct dimension of group identification.

Aharpour and Brown (2002) contrasted the social identity model of ingroup identification with several alternative models. Their study showed that groups emphasized some functions of identification which differed from the processes proposed by social identity theory. In particular, all of the four different groups that

Aharpour and Brown (2002) investigated (i.e., trade unionists, football supporters, English students, and Japanese students) were found to significantly differ among five factors: material and emotional interdependence, behavioral and emotional independence, self and social learning, ingroup comparison, and ingroup homogeneity and intergroup comparison. As measured, extracted, and explained, however, three of these five factors should be treated with caution. The self and social learning factor and the ingroup comparison factor both consisted of only negatively and positively worded items respectively. This leaves a doubt that these two factors might represent method factors as explained by Russell (2002). The behavioral and emotional independence factor on the other hand, appears to be more a measure of personal self-construal and personal identification rather than measure of group identification as it “represents the member needs to express themselves independently from the norms and expectation of the others” (Aharpour & Brown, 2002, p. 168). In the view of the above arguments, this leaves us with two clear and distinct functions of group identification which specifically reflect member’s material and emotional interdependence and the idea of intergroup comparison and perceived ingroup homogeneity at the group level of identity.

As Aharpour and Brown (2002) defined it, identification based on material and emotional interdependence with the group “gives members a chance to help each other while, at the same time, gaining personal benefits, rewards, self confidence and positive feelings about oneself” (Aharpour & Brown, 2002, p. 168). The way this factor is defined and assessed suggests that it incorporates two relatively distinct aspects of members’ interdependence. As it will be explained further in this work, *material* interdependence and *emotional* interdependence could be clearly separated from each other and investigated independently on the basis of the type of relationship (exchange vs. communal) that is involved in the process.

Prentice, Miller, and Lightdale (1994) considered different types of ingroup identification and drew a distinction between *common bond* and *common identity*. Common bond refers to attachment to individual group members, and common identity refers to attachment to the group. Attachment to the group and attachment to the group members appear to be independent from each other and differ in whether ingroup identification is based on connections between individual members in the group or is primarily and directly associated with the identity of the group as a whole entity. In other words, the distinction here is between relationships among individual people within a group (common bond) and social identification with social categories (common identity), as conceptualized by social identity theory and self-categorization theory. As Brewer and Garner (1996) explained, “both interpersonal and collective identities are social extensions of the self but differ in whether the social connections are personalized bonds of attachment or impersonal bonds derived from common identification with some symbolic group or social category” (p. 83).

Ashmore, Deaux, and McLaughlin-Volpe (2004) described seven dimensions of collective identification and explained their conceptual distinctiveness on the basis of previously identified elements of identification. The set of proposed dimensions included: self-categorization, evaluation, importance, attachment and sense of interdependence, social embeddedness, behavioral involvement, and meaning and content of identification. Self-categorization is defined as the process of placing the self in the social unit, identifying the self as a similar and prototypical group member, and categorizing the self in terms of the specific group in question. This dimension is similar to Ellemers et al.’s (1999) self-categorization component of identification. It is consistent with SIT and SCT’s view of social identification and represents the cognitive element of individual’s identification with groups. Evaluation refers to the individuals’

attitude towards the salient group. It reflects the positive or negative perception that an individual has for his/her group, together with the perceived (favorable or unfavorable) judgments that external others have about the same social unit. As conceptualized here, evaluation is similar to Sellers et al.'s (1998) regards factor, Ellemers et al.'s (1999) group self-esteem dimension, Jackson and Smith's (1999) attraction to the ingroup dimension, and Cameron's (2004) ingroup affect factor. Importance refers to the extent to which a membership in a particular group is important for one's self-definition. As explained, this dimension is similar to Sellers et al.'s (1998) and Cameron's (2004) ideas of centrality. Attachment and sense of interdependence refers to the person's emotional involvement with the social group in question and is related to the perception of common fate. As described, this factor includes Ellemers et al.'s (1999) affective commitment component in its conceptualization and is partly similar to Cameron's (2004) ingroup ties factor. Social embeddedness reflects the extent to which individual's identification with a particular social group is integrated in her/his everyday relationships with others. As Ashmore et al. (2004) pointed out, this dimension is more sociological in nature but could be partly related to the commitment idea in group identification research. Behavioral involvement refers to the extent to which an individual's actions are determined by her/his group membership. This dimension is similar to Henry, Arrow and Carini's (1999) idea of interdependent behavior and outcomes.

Finally, Ashmore et al.'s (2004) much broader content and meaning dimension includes self-attributed characteristics associated with the endorsement of a group's traits, ideological beliefs about the history and the experience of the group, and the group member's internal narratives about the self and the group. This dimension is

similar to Sellers et al.'s (1998) ideology factor of identification but represents a more extensive view of this construct that includes narratives and self-endorsed attributes.

Very recently, two studies reviewed a variety of approaches towards group identification and proposed new multidimensional models that attempted to integrate some of the previous findings in the area (Roccas, Sagiv, Schwartz, Halevi, & Eidelson, 2008; Leach et al., 2008). Building on four different theoretical perspectives that examine identity processes, Roccas et al. (2008) proposed that group identification is best described in terms of importance, commitment, superiority, and deference.

According to the authors, the importance mode is directly derived from the social identification and self-categorisation theoretical perspectives and is primarily cognitive in nature with some affective elements. It refers to the perception of the group as an important part of the individual's self-definition and the sense of being similar to, and having shared goals with, other members of the group. The commitment mode is linked to social identity research (Ellemers et al., 1999), organizational research (e.g., Meyer & Allen, 1997; Mowday, 1998) and some other perspectives such as patriotism-nationalism research and Triandis's (1995) horizontal collectivism idea. As Roccas et al. (2008) explained, "the commitment mode refers to the desire to contribute to the welfare of the group. It entails a genuine concern for the group's welfare and expresses an altruistic motivation to benefit the group" (p. 296). A similar idea for altruistic cognitive merging of the self with the group has been also discussed in Tyler and Blader's (2001) work on cooperative behaviour in groups. The third mode of group identification, superiority, also appears to have its roots in SIT and could be seen as partially overlapping with previously investigated constructs such as collective self-esteem (Luhtanen & Crocker, 1992) and ingroup favouritism (Rabbie, Schot, & Visser, 1989; Turner & Reynolds, 2004). As defined by Roccas et al. (2008), superiority is

comparative in nature and refers to the perception of the ingroup as worthier and better than the exterior groups.

Finally, the deference mode of group identification is derived from Triandis and Gelfand's (1998) vertical collectivism idea and is proposed to be a core element of blind patriotism (Schatz, Straub, & Lavine, 1999) in patriotism-nationalism research. As described by Roccas et al. (2008), deference "refers to idealization of and submission to central symbols of the group" (p. 297). This mode also seems to be affective in nature, but it is inconsistent with the SIT's identification ideas because, in most previous studies, it has been treated as a result rather than a factor of identification.

Roccas et al.'s (2008) attempt to unite different approaches to group identification in a single multidimensional model is interesting. However, the reported correlations between the four modes of identification are large, with *rs* ranging from .55 to .79. This detail needs to be carefully considered, because it questions the validity of the proposed model. Such large correlations between supposedly distinct constructs could be an indicator for a possible broader one factor solution. In addition, the fact that importance and commitment constantly correlated at a very high levels (*rs* ranged from .76 to .79) clearly point towards the assumption that, at least in this particular study, these two modes should be regarded as more similar than distinct dimensions.

In other recent research, Leach et al. (2008) reviewed various multi-dimensional approaches to ingroup identification and proposed a five-component hierarchical model. In seven studies, the authors distinguished between individual self-stereotyping, ingroup homogeneity, solidarity, satisfaction, and centrality and grouped these components into two distinct higher-level dimensions: self-definition and self-investment. Group level self-definition incorporates personal self-stereotyping and ingroup homogeneity while group level self-investment incorporates solidarity, satisfaction, and centrality.

According to Leach et al. (2008), “individual self-stereotyping indicates the degree to which an individual perceives herself or himself as similar to an ingroup prototype” (p. 146). Ingroup homogeneity on the other hand, is associated with the perception of the group as sharing communalities. The constructs of self-stereotyping and ingroup homogeneity are both consistent with self-categorization theory’s conceptualization of social identification (Turner et al., 1987, Oakes et al., 1994) and are pitched at the group level of identity. Satisfaction refers to the individual’s positive feelings towards the group and her/his membership in it and is associated with the positive value attached to the ingroup. This component is similar to Sellers et al.’s (1989) regard dimension, Ellemers et al.’s (1999) group self-esteem, Cameron’s ingroup affect factor, and Ashmore et al.’s (2004) evaluation dimension. The construct of solidarity refers to attachment, commitment, and sense of belonging to the ingroup, together with the perception of bond with other group members. This component is similar to Ellemers et al.’s (1999) commitment and Cameron’s (2004) ingroup ties factors. It could also be related to Ashmore et al.’s (2004) attachment and sense of interdependence dimension. Finally, Leach et al.’s (2008) component of centrality refers to the salience and the importance of the group for the self. This dimension is to some extent similar to Sellers et al.’s (1998) centrality, Ashmore et al.’s (2004) importance, and Roccas et al.’s (2008) importance components. However, Leach et al.’ (2008) centrality component overlaps the most with Cameron’s (2004) centrality factor because it assesses both the importance and the salience of the group.

Leach et al.’s (2008) broader distinction between self-definition (incorporating individual self-stereotyping and ingroup homogeneity) and self-investment (incorporating satisfaction, solidarity, and centrality) at group level highlights some conceptual similarities between the constructs included in each of these dimensions.

However, it also points towards the substantial differences between these two groups of components, because each of the above two broader dimensions are seen as more or less associated with different type of groups. As Leach et al. (2008) suggested, group-level self-definition is more likely to be particularly related to identification with common identity groups (Prentice et al, 1994) while group level self-investment is more likely to be the root of identification with common bond groups (Prentice et al., 1994). It could be assumed then, that ingroup identification based on self-stereotyping or ingroup homogeneity, in most cases, would conceptually differ from identification based on centrality, satisfaction, or solidarity, and that, different types of groups would be more or less associated with different types of ingroup identification.

Distinguishing Five Key Types of Ingroup Identification in the Literature

Although early evidence suggested that ingroup identification was best represented as possessing a unidimensional structure (e.g., Brown et al., 1986), there is now strong empirical support for the multidimensional nature of identification. However, there is a disagreement about the precise number and nature of the different dimensions (Cameron, 2004; Obst & White, 2005). Despite this continuous disagreement, it is possible to distinguish five broad, core types of identification that are frequently presented in the literature.

First, there is a wide-ranging consensus that identification involves a component that relates to the salience, importance, significance, and centrality of the group membership for the self (Ashmore et al., 2004; Cameron, 2004; Leach et al., 2008; Roccas et al., 2008; Sellers et al., 1998). In general, this component refers to the importance of the group for one's self-concept and the amount of time spent thinking about being a member of that group.

Second, there is some consensus that ingroup identification involves a component that relates to perceived similarity to the group, self-categorization, and depersonalisation dimension (Ashmore et al., 2004; Jackson & Smith, 1999; Ellemers et al. 1999; Leach et al., 2008). This component reflects the shift from a personal to a group level of identity. It focuses on the processes of depersonalization and self-stereotyping that are proposed in social identity theory and self-categorization theory (Tajfel & Turner, 1979; Turner et al., 1987). These processes make the ingroup part of individuals' self-concept and cause people to see themselves as prototypical members of their group.

Third, there is some agreement that group identification includes a component related to close identification with other group members, commitment to the group, common bond, and ingroup ties (Ashmore et al., 2004; Cameron, 2004; Ellemers et al., 1999; Leach et al., 2008). This component refers to the perception of close emotional involvement with the ingroup, sense of belonging, and psychological bond with the group or its members.

Fourth, there are some indications that group identification involves a component related to reciprocal, behavioural interdependence between the group members (Henry et al., 1999; Rabbie, Schot, & Visser, 1989; Sherif, 1932). This component refers to the individual's identification with the group on the basis of outcome-oriented instrumental relationships with other group members in which group inputs are made with the expectation to receive a comparable return.

Finally, there is also some agreement that identification involves a component that relates to an evaluative, affective, ingroup attraction, superiority, satisfaction component (Ashmore et al., 2004; Cameron, 2004; Ellemers et al., 1999; Jackson & Smith, 1999; Leach et al., 2008; Roccas et al., 2008; Sellers et al., 1998). This

evaluative component refers to the individuals' positive or negative feelings associated with their group and their membership in the group.

Overall, there are some primary psychological dimensions that underline group identification. However, in many cases different researchers have used different labels to refer to the same construct. For example, Sellers et al.'s (1998) regard factor, Ellemers et al.'s (1999) group self-esteem, Cameron's (2004) ingroup affect, Leach et al.'s (2008) satisfaction, and Roccas et al.'s (2008) superiority, all refer to the positive feelings towards the group. In order to avoid this ambiguity in my research, I will use some new terms to describe some of the four types of identification that I will be investigating. Following Cameron (2004) and Leach et al. (2008), I will use the term *centrality* to refer to the type of identification associated with the continuing salience and the importance of the group for the self. I will use the term *social identification* to refer to the type of identification associated with self-stereotyping and perception of similarity with the ingroup members. I will use the term *communal identification* to refer to the type of identification associated with close interpersonal relationships and emotional connection with the group members. Finally, I will use the term *interdependent identification* to refer to the type of identification associated with interest-driven exchange oriented interdependence between the members of the group. The next section of this review will be concerned with explaining each of these four types of identification in greater detail in order to justify their use and clarify their precise operationalisations in my research.

I did not investigate the evaluative component of identification because I considered it to be more related to collective self-esteem (Luhtanen & Crocker, 1992; Rubin & Hewstone, 1998) than ingroup identification. In this respect, I concur with Correll and Park's (2005) recent assessment that:

several recent studies have defined identification by virtue of an individual's liking for the ingroup (e.g., Brewer, 1991; Hornsey & Hogg, 2000; Mullin & Hogg, 1998; Mummendey, Otten, Berger, & Kessler, 2000). Though liking and identification may often covary, we believe it is important to maintain them as conceptually distinct constructs. An individual may like a group that has little personal relevance (e.g., people who have good driving records) – indeed, an individual may even like an out-group. Inversely, a disliked ingroup may be painfully relevant to the self-concept (e.g., ex-convicts). We suggest that identification is best conceived as an evaluatively neutral connection, a link that defines the self-relevance of the group rather than its evaluation” (p. 349).

In the view of the above discussion, I believed that centrality, social, communal, and interdependent identification would provide the clearest evidence of divergence as a function of culture, gender, ingroup status, attachment style, and group type because they provide the clearest and most fundamental distinctions in the ingroup identification literature. A detailed explanation for the relevance of such expectations and supporting research evidence is provided later in this chapter.

One key point to note about the previous research in this area is that the vast majority of researchers have primarily focused on the question of whether there are different types (dimensions) of identification and what these types are. In contrast, my work moves beyond this first-order question and offers a set of studies that investigate whether different types of identification are related differently to culture, gender, ingroup status, attachment style, and the type of group that is made salient. This second-order question has received much less attention in the literature (for exceptions see Aharpour & Brown, 2002; Crisp et al., 2008; Kashima & Hitokoto, 2009). Therefore, studies in this particular direction have the opportunity to address new issues in group

identification research and to extend our understanding of the complexity of individuals' identification with social groups.

A Theoretical Analysis of Centrality, Social, Communal, and Interdependent Identification *Centrality*

Recent research has found that “identification with an ingroup makes the group a central aspect of the individual’s self-concept” (Leach et al., 2008, p. 147). Although, there is often a lot of disagreement in the literature about which type of group identification should be measured, there is the greatest amount of consensus about the relevance of centrality of the group and the group membership. Notably, the concept of centrality has been present in a number of studies on ingroup identification and related phenomena (e.g., Ashmore et al., 2004; Cameron, 2004; Leach et al., 2008; Luhtanen & Crocker, 1992; Oakes, Haslam, & Turner 1994; Roccas et al., 2008; Sellers et al., 1998; Turner et al., 1987). However, as Cameron (2004) pointed out, most of these previous studies conceptualize, and assess centrality only in terms of the importance of the group for the self. Moreover, Leach et al. (2008) recently noted that the majority of multidimensional investigations of ingroup identification “include centrality as part of a more general ‘cognitive’ or ‘self-categorization’ component that does not distinguish it from simple inclusion in an ingroup, individual self-stereotyping, or ingroup homogeneity” (p. 147).

Indeed, much evidence suggests that centrality represents a qualitatively distinct element of ingroup identification that can be distinguished from other previously discussed facets of identification with the group (e.g., Cameron, 2004; Leach et al., 2008; Obst & White, 2005; Roccas et al., 2008). Like Leach et al. (2008) and Cameron (2004) I believe that centrality is best seen as representing not only the importance of

the group but also the extent to which one's group membership comes to mind.

Therefore, assessment of this construct should be equally focused on how important the group is for the identifying individual and how often that same person thinks about his/her group or his/her membership in it. Consequently, in my research, I operationalise centrality as representing the subjective importance of the group together with the continuing salience of the group membership.

Social Identification

According to self-categorization theory (Turner et al., 1987), social identification involves a process of depersonalization by which individuals regard themselves as interchangeable members of their group and stereotype themselves based on the group's prototype. This process of self-stereotyping enhances the perceived similarities between the self and other ingroup members and lessens the perception of the self as an individual that is qualitatively different from others. Depersonalization is the basic process that represents the change from an interpersonal to an intergroup, or social, level of identification. According to self-categorization theory, depersonalization and self-stereotyping are the primary aspects of social identification, and it is this self-categorization interpretation that I intend to follow when distinguishing between social identification and other types of group identification.

My idea of social identification is similar to Leach et al.'s (2008) higher order dimension of group level self-definition, Jackson and Smith's (1999) depersonalization dimension, Ellemers et al.'s 1999 self-categorization dimension, and Ashmore et al.'s (2004) dimension of self-categorization as the perceived similarity with the ingroup. However, there are some differences. Leach et al.'s (2008) group level self-definition component for example, consists of individual self-stereotyping and ingroup

homogeneity subcomponents. In contrast, I define social identification only in terms of self-stereotyping and do not include ingroup homogeneity in my measure. The construct of ingroup homogeneity only contains an indirect reference to the self as one of the ingroup members, and it cannot, therefore, be considered as a direct expression of the extent to which the self is perceived to be similar to other group members. For example, Leach's ingroup homogeneity item "[ingroup] people are very similar to each other" does not include an explicit reference to the self as one of the target individuals. Consequently, it is possible for a respondent to strongly agree with this item while continuing to considering him or herself to be markedly different from other ingroup members. In contrast, measures of *self-group similarity*, such as "I am quite similar to the other people in my group", provide a much more direct and explicit comparison between the self and other group members and, consequently, they provide a more valid and sensitive measure of the extent of self-stereotyping and depersonalization. Such an approach is consistent with Bennett and Sani's (2008) research on children's subjective group identification that highlights the developmental primacy of this type of identification.

The Distinction Between Communal and Interdependent Identification

In this research, I explore the possibility that not all forms of ingroup identification are primarily based on depersonalization and self-stereotyping, and that there are some types of ingroup identification that are based on alternative, interdependency processes. Such types of ingroup identification will occur at the interpersonal level of analysis and will differ from social identification and centrality in terms of whether identification is focused on the group as a whole entity or on the group members in particular.

Prentice et al.'s (1994) distinction between common identity and common bond is helpful in distinguishing between types of ingroup identification that are based on self-categorisation and types of ingroup identification that are based on interpersonal interactions between group members. However, the concept of common bond identification can be further refined based on the specific type of relationships that underline the interpersonal processes in the group. Specifically, it is possible to distinguish between two types of common bond identification: communal and interdependent.

The distinction between communal and interdependent identification is based on the distinction between communal and exchange relationships (Clark & Mills, 1979; Mills & Clark, 1994). Essentially, communal identification is based on close and affectionate interpersonal relationships with other group members, whereas interdependent identification is based on less close and more instrumental, exchange-based relationships with other group members. As Mills and Clarks (1994) explained, exchange and communal relationships differ from one another in whether the inputs in the group are made only in order to receive certain benefits in return (exchange relationships) or interactions in the group are guided by a concern of others well-being with no expectations for repayment attached (communal relationships). These two concepts of communal and exchange relationship are consistent with Aharpour and Brown's (2002) concept that emotional and material interdependence are a factor of group identification. However, given the type of interpersonal relationships that underlie members' interdependence in the group, group identification could be separately evoked by two distinct types of relationships that differentiate material from emotional interdependence.

First, identification could be based on close altruistic relationships with other group members that are primarily driven by the individual's willingness and desire to satisfy other members' needs or simply to please them without expecting anything in return. On the basis of this communal form of interdependence, giving benefits does not oblige members to return benefits of a comparable value. The best example of such relationships is the parent-child relationship in the family.

Second, identification could be based on instrumental, sometimes exploitative, relationships among group members that are primarily driven by the prospect of receiving comparable benefits from the group members in return for the benefits given. Hence, unlike communal relationships, exchange relationships carry the obligation, or at least the expectation, of repayment for the benefits given or received. Good examples of such relationships are most business relationships.

Based on the substantial differences between the above two types of ingroup relationships, it could be suggested that identification based on exchange relationships and identification based on communal relationships represent two separate types (*communal* and *interdependent*) of interpersonal identification with the group. Unlike social identification and centrality, which are placed at the group level of identity, these two types of ingroup identification are positioned at the interpersonal level of identity. Each of them occurs in a conceptually different way than the other two and has a completely different meaning for the identifying individuals. I explain communal and interdependent identification in greater detail below.

Communal Identification

Kashima et al. (1995), Brewer and Gardner (1996), and Brewer and Chen (2007) contrasted three ways in which people can perceive, or construe, themselves. First, people may perceive themselves to be autonomous, idiosyncratic, separate, and self-

contained individuals: personal self-construal. Second, people may perceive themselves to have close connections and role relationships with others in communal relationships: relational self-construal. Third, people may perceive themselves to be interchangeable members of a social group: collective self-construal. Personal self-construal is situated at the individual level of identity while collective self-construal corresponds to the group level of the social self. Relational self-construal on the other hand, represents the interpersonal level of identity and is driven by individuals' interpersonal connections with others. As Brewer and Gardner (1996) explained, personal self-construal and collective self-construal are conceptually equivalent to personal and social identity, as specified by social identity theory and self-categorization theory. Until now, however, researchers have not specifically considered the conceptual equivalent of relational self-construal in the area of ingroup identification. I propose a common bond form of identification called communal identification, which is similar to the concept of relational self-construal but relates specifically to ingroup identification. Hence, communal identification is an interpersonal (common bond) type of ingroup identification based on close, sometimes altruistic relationships with other group members (e.g., friendships, family).

My idea of communal identification is similar to some of the other dimensions of ingroup identification that I previously discussed in this chapter. However, as conceptualized and investigated here, communal identification can also be clearly distinguished from each of these dimensions. For example, Cameron's (2004) concept of ingroup ties reflects the degree to which group members see themselves as a part of the salient social group and refers to perceived similarity and bonds with fellow ingroup members (e.g., "I have a lot in common with other [ingroup members]"; "I find it difficult to form a bond with other [ingroup members]"). As defined and operationalized

in my study, communal identification is a type of ingroup identification that is based on interpersonal bonds with the members of the group. However, the formation of such bonds does not include the perception, or the sense, of similarity with other group members but is rather a result of the specific type of interactions between individual members of the group. As explained earlier in this chapter, and consistent with Leach et al. (2008), I see perceived similarities between group members to be primarily associated with social identification (self-stereotyping) that is qualitatively different from the interpersonal types of identification. People involved in communal identification should feel connected to other individual members of the group but should not necessarily perceive themselves as similar to, or interchangeable with, their fellow group members. Indeed, Brewer and Chen (2007) argue that “connectedness to others based on strong interpersonal ties and networks may inherently conflict with a depersonalized representation of social groups and associated values” (p. 142). Hence, while Cameron’s (2004) construct of ingroup ties seem to capture perceived similarities among group members and the “individual-level perceptions of the extent to which one feels bond to the group” (Cameron, 2004, p. 243), communal identification is only associated with the process of members’ interactions and one’s specific interpersonal relationships with the other individuals in the group.

Leach et al.’s (2008) construct of solidarity could also be partly related to the concept of communal identification that I have proposed. According to Leach et al. (2008), solidarity refers to a “psychological bond with, and commitment to, fellow ingroup members [and] should be associated with a sense of belongingness, psychological attachment to the ingroup, and coordination with other group members” (p. 147). Hence, solidarity refers to the attachment and the formation of a bond between group members but appears to be pitched at the group level of identity. Identification

here is seen as “investment of the self in the group to which one is bonded” (Leach et al., 2008, p.147) and is related to group based, rather than interpersonal processes (e.g., “I feel a bond with [ingroup]”; I feel committed to [ingroup]”). Unlike Leach et al.’s solidarity construct, communal identification is clearly positioned at the interpersonal, common bond level of identification and is primarily associated with the relationship and the interactions between individual members of the group. Such interpersonal relationships in the group are considered to be a separate base for ingroup identification, and commitment here is particularly to individual ingroup members, rather than to the ingroup and its features in general.

Finally, communal identification has some correspondence with the attachment and sense of interdependence element of collective identification discussed by Ashmore et al. (2004) and with Ellemers et al.’s (1999) affective commitment component of social identification. As Ashmore et al. (2004) explained, emotional attachment and sense of belonging to the group reflects one’s affective involvement with the social category. The focal point of identification here seems to be the group as a social category rather than the individual members in that group. Ellemers et al. (1999) considered the attachment component as representing the emotional aspect of social identification and distinguished it from the cognitive and the evaluative components derived from Tajfel’s (1978) definition. According to Ellemers et al. (1999), affective commitment refers to the individual’s emotional involvement with the group. Therefore, items measuring this construct understandably focused on group based emotional aspects of identification, (e.g., “I dislike being a member of my group”; “I would rather belong to the other group”). As described and assessed then, both Ashmore et al.’s (2004) attachment and sense of interdependence and Ellemers et al.’s (1999) affective commitment reflect identification with the group as a social entity. Such focus makes

these components different from any forms of group identification derived from interpersonal relationships occurring between the group members. In support of this idea, Ashmore et al. (2004) noted that attachment to the group is oppositely distinct from attachment to group members and for “most group identities, both group attachment and members attachment may be important dimensions of identification” (Footnote 3, p. 90). Hence, unlike emotional attachment and affective commitment to the group, which appear to reflect the group-based emotional aspect of one’s identification, communal identification particularly refers to the attachment and, in some cases, emotional connection with individual members of the group. It is a result of personal involvement and specific relationships with these individuals rather than with the group in general.

Interdependent Identification

Clark and Mills (1979) distinguished between communal and exchange relationships. Examples of communal relationships are close friendships and family relationships. Examples of exchange relationships are business relationships and most work relationships. In communal relationships, group members benefit one another on the basis of concern for the others’ welfare. In contrast, in exchange relationships benefits are given with the expectation of comparable returns and individuals keep track of their contribution given or received as a part of their group membership. Exchange relationships highlight the idea that identification in some groups could be primarily based on mutual exchange, or at least expectation for mutual exchange, of benefits between the group members. People interacting in this particular way feel obligated to repay other members of the group for the benefits received, and other group members are expected to make an effort to repay for the benefits one has given to them. Hence, group identification here is a result of members’ double-sided instrumental

interdependence and, unlike communal identification, does not involve any elements of altruism or strong emotional involvement.

Notably, the concept of interdependent identification is consistent with early approaches to group psychology that are based on the concept of interdependence (e.g., Asch, 1952; Lewin, 1948; Sherif, 1936). According to Turner et al. (1987), these early approaches have given rise to an implicit theory of group psychology in which:

it is assumed that motivational (functional, objective) interdependence between people for the mutual satisfaction of their needs (achievement of co-operative goals, validation of benefits, values and attitudes, attainment of rewards, successful performance of tasks, etc.) gives rise more or less directly (in the positive case) to social and psychological interdependence in the forms of co-operative and/or affiliative social interaction, mutual interpersonal influence and mutual attraction or 'group cohesiveness' (Turner et al., 1987, p. 20).

In a manifestation of this interdependence idea, Rabbie, Schot, and Visser (1989) questioned the social identity interpretation of ingroup favoritism (Turner et al., 1987). According to Rabbie et al.'s reciprocity hypothesis, ingroup favoritism is a consequence of interdependence and reciprocal expectation between group members rather than the result of social identification. The authors argued that perceived goal interdependence between individual group members that is driven by the need for satisfaction of economic self-interests could lead to group formation. Such interdependence between individuals in the group is primarily evoked by the specific function of the group and can be clearly distinguished from social identity theory's processes of group formation and identification. Hence, certain groups and related types of ingroup identification could be solely based on pure instrumental cooperation and competition between group members as a result of each member's personal efforts to

gain maximum benefits from his/her membership and to satisfy his/her own self-interests.

In support of the interdependence idea discussed above, recent research suggests that both social identity and interdependence processes contribute to ingroup favouritism and group differentiation. Both Scheepers, Spears, Doosje, and Manstead (2002) and Stroebe, Lodewijkx, and Spears (2005) found that the social identity approach and the interdependence approach are equally valid and can be treated as complementary in respect of a specific group phenomena. In particular, Scheepers et al. (2002) found evidence that, under certain circumstances, the identity function and the instrumental function of a group each explain specific aspects of group identification (i.e., intergroup differentiation). In addition, Stroebe et al.'s (2005) results support the assumption that, in many cases, group members "maximize their outcomes by allocating more valued resources to those on whom they perceive themselves to be outcome dependent, anticipating that this favourable treatment will be returned" (p. 832).

Hence, the mechanism of identification in some cases seems to be primarily based on specific, exchange orientated relationships between individual members of the group, and any membership efforts and group inputs are specifically driven by the expectation to receive certain benefits in return (i.e., business partners). This interpersonal, rather selfish, type of identification with individual members of the group can be clearly distinguished from social identification. It is defined by ingroup interaction processes that are conceptually different from the processes of group identification proposed by social identity theory. Specifically, it does not involve depersonalization and recognition of similarity between group members. This suggestion is consistent with Brewer and Chen's (2007) analysis that points towards an inherent opposition between social identification and interdependent identification:

Perceiving people as identical and interchangeable group members reduces the ability to recognise interpersonal differences in the various costs and benefits that have been exchanged within the group. Indeed, similar to the idea of communal identification explained earlier in this chapter, individuals involved in interdependent identification retain their sense of individuality and do not see themselves as interchangeable members of their group. However, unlike communal identification where the benefits are given altruistically and usually without expectation of getting anything in return, interdependent identification represents a relatively selfish type of ingroup identification that occurs as a result of members' expectation for mutual exchange of benefits within the group.

Overall, despite heated debates about the superiority of the social identity and interdependence approaches (Rabbie et al. 1989; Turner & Bourhis, 1996), it appears that the integration of these divergent theoretical perspectives could be much more productive (Scheepers et al., 2002; Stroebe et al., 2005). Following the above theoretical line, and taking into consideration the support that the interdependence idea has found, I propose an exchange-based form of common bond identification named interdependent identification. Hence, interdependent identification is an interpersonal (common bond) type of ingroup identification based on instrumental exchange relationships with other group members. This type of identification is conceptually different from most of the previously discussed types and dimensions of group identification (e.g., centrality, social identification, communal identification, ingroup affect, self-categorization, etc.). However, interdependent identification could also be seen as similar to Henry et al.'s (1999) concept of behavioural interdependence, and Jackson and Smith's (1999) concept of interdependency beliefs. I explain the similarities and main differences below.

Henry et al. (1999) suggested that social categorization, interpersonal attraction, and behavioral interdependence represent three distinct source of identification with the group, and that each of these sources is pitched at different level of identity. The fact that behavioral interdependence is considered to be one of the three major sources of identification here is important from the view point of my current research, because it is consistent with the idea that identification based on behavioral interdependence is conceptually different from identification based on self-categorization (i.e., social identification) or personal attraction.

However, Henry et al.'s (1999) behavioral source of identification is focused on the group level of identity (e.g., "All members need to contribute to achieve the group's goals" and "This group accomplishes things that no single member could achieve"). Moreover, the way this concept is assessed does not clearly relate it to the self. For example, the item "All members need to contribute to achieve the group's goals" does not provide a direct measure of the individual's investment in the group. In contrast, I believe that it would be more appropriate if behavioral interdependence is measured at the interpersonal level of identification (e.g., "I keep track of benefits I have given to other members of my group"), because behavioral interdependence is primarily defined by the specific relationships between the self and other members of the group. This interpersonal type of ingroup identification reflects individuals' instrumental involvement in a group on the basis of their expectation to benefit from the group membership. In other words, individuals involved in interdependent identification will identify with the group through engaging in exchange based relationships with other individual group members in order to receive certain benefits, or to reach certain personal goals. Hence, members' interdependence and, consequently, interdependent identification, are better seen as occurring at the interpersonal level of identity because

the interactions and the identification here are primarily associated with the individual group members rather than with the group and its shared features.

My concept of interdependent identification is also partly similar to Jackson and Smith's (1999) interdependency beliefs dimension. However, as explained earlier, Jackson and Smith's interdependency beliefs factor reflects self-identity and self-interests only in relation to the group and its features as a whole (common fate). In contrast, my concept of interdependent identification is particularly focused on interdependence between individual group members as a result of the specific, exchange based, interpersonal relationships between them.

Summarizing the Four Types of Ingroup Identification That I Investigate

In the present research, I investigate four types of ingroup identification. *Centrality* refers to the salience and the importance of the group for the self, and it involves the process of self-definition. *Social identification* refers to the extent to which people perceive themselves as typical and interchangeable members of their group, and it involves the processes of self-categorization and depersonalization. *Communal identification* refers to the extent to which people perceive themselves to be in close communal relationships with other group members, and it involves the process of empathy. *Interdependent identification* refers to the extent to which people perceive themselves to be in instrumental exchange relationships with other group members, and it involves the process of instrumental dependence. Centrality and social identification occur at the group level of analysis, because they refer to common identity forms of identification that refer to the group as a holistic social unit. In contrast, communal and interdependent identification occur at the interpersonal level of analysis, because they

refer to common bond forms of identification that refer to individual members of the group.

Importantly, the four types of identification are not mutually exclusive. In other words, it is possible that a person can have high levels of all four types of identification at the same time. For example, a person could instrumentally depend on group members (interdependent identification), feel close to those group members (communal identification), perceive themselves to be similar to those members (social identification), and consider their group to be important in their self-definition (centrality). However, the strong manifestation of one type of identification might be associated with a decrease in the other types of identification, depending on the specific context and the target group in question. In support of this possibility, Mills and Clark (1994) noted that although one can have both exchange and communal relationships with the same individual, there are many factors that have opposite effects on these two types of relationships. Hence, under most circumstances, having a higher communal identification with a group might be expected to lessen interdependent identification with this group and vice versa. Likewise, following Brewer and Chen (2007), it is also possible that the relationship between common identity (i.e., centrality and social) forms of identification and common bond (i.e., communal and interdependent) forms of identification is negative in some cases due to the opposition between depersonalization and interpersonal relations.

Measuring the Four Different Types of Ingroup Identification

So far, I have outlined the theoretical framework and the origin of the distinctions between different types of ingroup identification. I have also presented and discussed the four main types of identification that I aim to investigate. Specifically, I have described and operationalised centrality, social, communal, and interdependent

identification in the context of previous research in the area and explained the similarities and the differences between these constructs and other types of ingroup identification.

A variety of measures have been developed to investigate different constructs of group identification (e.g., Brown et al., 1986; Cameron, 2004; Ellemers et al., 1999; Henry et al., 1999; Hogg & Hains, 1996; Karasawa, 1991; Leach et al., 2008; Luhtanen & Crocker 1992; Roccas et al., 2008; Sellers et al., 1998). Although sometimes overlapping with one another, these instruments represent different theoretical and empirical models of ingroup identification and aim to offer a broad range of choices for unidimensional and multidimensional assessment of the construct.

However, as Henry et al. (1999) noted, in many cases “when group identification is measured, researchers frequently use ad hoc scales that do not reflect their theoretical definitions” (p. 576). In the current study, I have tried to avoid such criticism by designing and validating my own measure that matches my theoretical conception and is able to differentiate the proposed centrality, social, communal, and interdependent types of identification.

Given that fact that my model does not directly correspond to any previously established scales in the area, it seemed necessary to develop an instrument that could clearly indicate and compare the extent to which individuals manifest each type of identification. Leach et al.’s (2008) measure of self-stereotyping and Cameron’s (2004) measure of centrality, for example, are close to my conceptualisations of social identification and centrality respectively. However, no previously validated instruments measure the particular operationalisations of communal and interdependent identification that I have described above.

In addition, no established scale assesses centrality, social, communal, and interdependent identification together. Consequently, in my research, I intended to design a scale that distinguishes between these four constructs and measures them together. The development of the instrument on the basis of previously validated measures of group identification will be explained in detail in the next chapter of this work. Following Clark and Watson's (1995) recommendation for psychological scale development, the scale will be tested in a series of investigations and evidence for its construct validity would be sought and presented throughout this thesis.

Different Types of Ingroup Identification as a Function of Culture, Gender, Ingroup Status, Attachment Style, and Group Type

Cross-Cultural Differences in Types of Ingroup Identification

Cross-cultural perspectives towards group identification have the potential to clarify the social aspects of the self in different societies and to reveal the way in which individuals define themselves in terms of their social groups across cultures. One central point in this perspective is the idea that group identification involves similar processes but the perception of the groups and their meaning differs as a function of various cultural characteristics. For example, members of different cultures are likely to perceive and evaluate a particular group (or a particular social situation) as more or less identification-enhancing. This will promote different levels and forms of identification with that group and will push the identification experience in relatively different directions (Kashima & Hitokoto, 2009). Therefore, investigating how types of ingroup identification vary across cultures will help us understand better the relationships between the individual and the group in different societies.

Previous research has investigated cross-cultural variations in individuals' identification with social groups (Bond & Hewstone, 1988; Triandis, McCusker, & Hui, 1990; Jetten, Postmes, & McAuliffe, 2002; Yuki, 2003). However, detailed studies on the relationships between culture and different constructs of group identification are few. Very recently, Kashima and Hitokoto (2009, Study1) examined cross-cultural differences in identification between Australian and Japanese university students. The authors assessed identification in terms of cognition, affect, and psychological ties with the ingroup and tested how the strength of these constructs varied across the two cultures. The results of the study showed that, compared to Australian participants, Japanese participants scored higher on the cognitive dimension of identification and lower on the affective dimension.

The above research represents a good start at revealing the effect of culture on different facets of individuals' identification with social groups. However, it investigates constructs of group identification without precisely justifying their use and explaining their exact operationalisations in the study. This points towards the need for a more systematic approach to this particular issue.

Self-construal is regarded as having a major impact on many psychological processes (Markus & Kitayama, 1991) and could affect one's choice of "optimally distinctive" social identity that satisfies individual's psychological needs in the specific social context (see Brewer, 1991 for the concept of optimal distinctiveness). Research that has investigated individualism-collectivism in different countries and societies has found substantial evidence of cultural variations in self-construal (for a meta-analytic review, see Oyserman, Coon, & Kemmelmeier, 2002). Typically, it is assumed "that individualism is more prevalent in industrialized Western societies than in other societies, especially more traditional societies in developing countries" (Oyserman et

al., p. 3). It could be expected then that individuals from Western cultures such as North America, Europe (with some exceptions) and Australia would be more independent in their interaction with others in attempt to retain their sense of individuality. People from non-Western and more traditional cultures such as China and India, on the other hand, would be relatively group oriented and should be more prone to perceive themselves as principally indivisible and interchangeable elements of their social units.

In relation to individualism-collectivism differences and their impact on ingroup identification, Hinkle and Brown (1990) proposed a model that underlies four dimensions along which the identification processes may occur. More specifically, the authors suggested that the direct link between group identification and ingroup bias proposed by SIT is determined by individualism-collectivism and autonomous-relational orientation dimensions. In their work, this link was shown to be strongest in the collectivist-relational cell of the design and weakest in the individualist-autonomous combination.

Given the cross-cultural variations in individualism-collectivism orientation and the specific impact that these two dimension may have on the identification process, I hypothesize that there will be a significant difference in the way that people from Western and non-Western cultures identify with their groups. In cases where the self is seen as more autonomous and differentiated from the others, identification with the ingroup will be shaped by the individual's basic need to maintain his/her sense of individuality in the group and the interaction with the members of the group will be associated with the recognition of the personal uniqueness of each group member. As Gardner, Gabriel, and Lee (1999) pointed, such a view of the self is chronically encouraged and more typical in Western cultures.

In cases where the self is seen as an embedded part of a social unit with shared common goals and values, identification with the ingroup will be primarily determined by the individual's self-categorization as an interchangeable, average member of the group, and the group membership, not the group members, will form the central basis for identification. Such a view of the self is more typical for non-Western, more traditional cultures (Oyserman, et al., 2002).

Based on such arguments, I expect that people from Western cultures will show less social identification and centrality than people from non-Western cultures because these forms of identification emphasise the importance of the group in self-definition and a loss of the sense of individuality in the group. In addition, I expect that Westerners will show more communal and interdependent identification than people from non-Western cultures because these forms of identification are based on interpersonal relationships with group members and allow identifying individuals to retain their sense of individuality in the group.

Gender Differences in Types of Ingroup Identification

Researchers have identified gender differences in a form of self-construal associated with relational interdependence (e.g., Baumeister & Sommer, 1997; Cross & Madson, 1997; Gabriel & Gardner, 1999). Cross and Madson (1997) reviewed evidence supporting the idea that women tend to have a more interdependent self-construal than men while men have a more independent self-construal than women. According to the authors, both genders desire close relationships but "women are more likely than men to incorporate those relationships into their own self-construal" (Cross & Madson, 1997, p. 51). Hence, men and women are expected to diverge in their affinity to define themselves as independent and separate from others or as closely connected through relationships with significant others.

Following on from this work, Baumeister and Sommer (1997) argued that men are as socially oriented as women, and that the actual difference in each gender's self-construal lies in the different spheres of men and women's social relationships. This position was further supported by Gabriel and Gardner (1999) who agreed that "men have the same motivation for connectedness as women, but that motivation is expressed by having a higher number of large group associations instead of more intimate dyadic relationships" (p. 643). Following this explanation for the occurring gender differences in self-construal, Gabriel and Gardner (1999) also suggested that "men and women do not differ in the importance of having an independent or interdependent focus per se, but rather in the aspect of interdependence that is important" (p. 644). Relating the above viewpoint with Brewer and Gardner's (1996) three types of self-construal (independent, relational, and collective), it is possible that women possess a greater relational self-construal than men, while men maintain a greater collective self-construal than women (Gabriel & Gardner, 1999). I predict that the above gender differences in self-construal will lead to gender differences in some of the types of identification that I have investigated.

As described earlier, collective self-construal is conceptually equivalent to social identity and self-categorization theories' concept of social identification (Brewer & Gardner, 1996). Hence, given that men tend to have more collective self-construal than women, I predict that men will report higher levels of social identification than women. In contrast, my idea of communal identification is conceptually similar to relational self-construal. Hence, given that women tend to have more relational self-construal than men, I predict that women will report higher levels of communal identification than men.

Group Status and Different Types of Ingroup Identification

Previous research has revealed a link between group status and group identification. Studies in the minimal group paradigm (Sachdev & Bouris, 1997) revealed that members of a higher status groups have greater identification than members of a low status groups. Turner, Hogg, Turner, and Smith (1984), on the other hand, found that ingroup identification increased after group failure had lowered ingroup status. According to the authors, negative outcomes related to individuals' group membership can lead to an increase in one's attraction to the group. In most cases, such an effect is primarily evoked by the process of group identification that helps the self to better explain group related behaviour. As Turner et al. (1984) explained, "where individuals feel personally responsible for acting as group members they will identify more strongly with the group if it is associated with negative rather than positive outcomes in order to justify and explain their actions" (p. 108). Hence, low group status associated with defeat or failure will enhance individuals' adhesion to the group and increase perceived group cohesion and identification with that group.

Consistent with Turner et al.'s (1984) findings, subsequent research in the area has revealed that an increase in group identification and cohesion is a common reaction to identity threats that are associated with low group status (Branscombe, Ellemers, Spears, & Doosje, 1999; Branscombe, Schmitt, & Harvey, 1999; Ellemers, 1993; Jetten, Branscombe, Schmitt & Spears, 2001). In particular, Branscombe, Schmitt, and Harvey (1999) and Jetten, et al. (2001) found that members of devalued (low status) groups increased their identification with their group in attempt to secure higher self-esteem and to substantiate their group membership in response to expectations of prejudice and perceived discrimination associated with low-status groups.

However, the previously cited research refers to group identification in general (Branscombe, Schmitt, & Harvey, 1999; Jetten et al., 2001; Turner et al., 1984) and

does not distinguish between different types of ingroup identification. My research will attempt to reveal whether the expected increase in identification as a result of a low status group membership varies as a function of the specific type of ingroup identification in question.

Simon and Brown (1987) and Simon (1992) proposed that minority group members enhance their positive identification with the group by boosting the perceived similarity between ingroup members. Hence, members of a low status group should perceive their group as more homogeneous than should members of a high status group. Given that social identification is characterized by perceived similarity between the self and other group members, I predict that social identification will vary as a function of group status such that individuals in a lower status group would have stronger social identification compared to individuals in a higher status groups.

In addition, given that people from non-Western cultures are expected to have higher social identification than people from Western cultures, the effects of group status on social identification may be moderated by culture, with nonWesterners being most sensitive to this effect. Chapter 3 of this work will provide more theoretical background and detailed clarification of the expected interactions between group status and culture and their possible effect on different types of ingroup identification.

Relationship Attachment Style and Different Types of Ingroup Identification

Attachment theory was initially proposed by Bowlby (1969, 1973, 1980) and further elaborated and developed by a large number of other investigators (e.g., Ainsworth, Blehar, Waters, & Wall, 1978; Bartholomew & Horowitz, 1991; Feeney & Noller, 1996; Fraley & Shaver, 2000; Hazan & Shaver, 1987; Main & Cassidy, 1988). Researchers have identified three distinct styles of adult attachment, usually labelled in the literature as secure, anxious/ambivalent, and avoidant (e.g., Ainsworth et al., 1978;

Hazan & Shaver, 1987). Bartholomew and Horowitz (1991) proposed an extended four-category typology in adult relationship attachment based on individuals' intrapersonal (self-image) and interpersonal (image of others) notions. The four attachment styles are secure, preoccupied, fearful-avoidant, and dismissive-avoidant. The first three of these four categories are conceptually similar to Hazan and Shaver's (1987) secure, anxious/ambivalent and avoidant types of adult attachment respectively (Bartholomew & Horowitz, 1991; Brennan, Shaver, & Tobey, 1991). People with secure attachment style have positive views of themselves and others and feel comfortable in both dependent and autonomous relationships. People with preoccupied (anxious/ambivalent) attachment style see themselves as being unworthy in a relationships and struggle for intimacy and approval from positively valued others. People with fearful-avoidant attachment style have negative views about themselves and the others and avoid close involvement in relationships because of fear of rejection. People with dismissive-avoidant attachment style have a sense of worthiness and self-sufficiency and try to maintain a sense of high independence by denying the need of close relationship with unworthy others.

Previous research has acknowledged the link between individuals' relationship attachment and individuals' identification with groups. Smith, Murphy and Coats (1999) proposed that "adult attachment theory, which has been prominent in recent years as a theory of interpersonal relationships, may be able to shed light on the processes underlying people's identification with social groups as well" (p. 94). According to the authors, relationship attachment and attachment to the group are sometimes correlated but conceptually and empirically different constructs. In the view of the link between attachment style and type of identification then, it could be expected that different types of relationship attachment style will be related to different types of

ingroup identification, and one's attachment style could serve as a predictor of the preferred type of identification with the group.

Crisp et al. (2009) recently investigated the extent to which dispositional differences in attachment style account for increases or decreases in individuals' ingroup identification following an interpersonal relationship threat. Their study operationalized attachment style as a continuous variable that integrates two orthogonal dimensions: attachment avoidance and attachment anxiety. The authors proposed that a perceived relationship distress would result in less anxious individuals identifying with their groups to a greater degree than individuals who are more anxious. As Crisp et al. (2009) summarized their results, the study provided "evidence supportive of the idea that following attachment threat higher attachment anxiety is associated with lower identification with groups while lower attachment anxiety is associated with higher identification with groups" (p. 121).

The above study is important in its successful attempt to apply attachment theory to the area of group identification and to reveal the way in which differences in relationship attachment predict the strength of individual's identification with groups. However, the research seems to confound different types of ingroup identification in its approach. For example, identification with a group of friends and identification with a social category group may be based on different mechanisms and therefore may be qualified in different ways by dispositional differences in attachment style. In support of this assumption, Crisp et al. (2009) noted that the observed attachment threat-attachment style-group identification relationships "are more applicable when the groups involved are lower in entitativity (e.g., social categories like gender) compared to those higher in entitativity (e.g., intimacy groups like friendship groups)" (p. 121). Consequently, consideration of the conceptual differences between different types of

ingroup identification is necessary in order to arrive at a clearer picture of attachment style-ingroup identification relationships. In the present research, I tested the idea that each of the prototypic adult attachment styles (i.e., secure, anxious/ambivalent, and avoidant) are differentially associated with different types of ingroup identification.

Researchers have examined the way in which attachment style affects individuals' perceptions of similarity with others. Mikulincer, Orbach, and Iavnieli (1998) found that, "people differing in attachment style systematically differed in the extent to which their own self-descriptions were similar to their views of others' traits and opinions" (p. 444). In particular, compared to people with a secure attachment style, avoidant individuals reduced their perceived self-to-ingroup similarity whereas anxious/ambivalent individuals increased it. Given that social identification is based on perceived similarity between group members, I predicted that, relative to secure individuals, avoidant individuals should have lower social identification and anxious/ambivalent individuals should have higher social identification.

In addition, research by Gabriel et al. (2005) has provided evidence that individuals with avoidant attachment styles scored lower than individuals with nonavoidant attachment styles on a measure of relational self-construal that was modified to relate to friendship (Footnote 1, Gabriel et al., 2005, p. 1571). As explained earlier in this chapter, my idea of communal identification is similar to the idea of relational self-construal applied in the area of ingroup identification. Hence, I predict that people with an avoidant attachment style should report less communal identification than people with either secure or anxious/ambivalent attachment styles.

Different Types of Groups and Different Types of Ingroup Identification

One general agreement in the area of group research is the idea that groups differ in their characteristics, psychological functions, levels of inclusiveness, relationship

principles, and the processes governing group membership (Allport, 1954; Brewer, 2004; Caporael 1997; Brewer & Gardner 1996; Hamilton & Sherman 1996; Hogg & Moreland, 1993; Lewin, 1948; Sherif, 1936; Turner et al., 1987). Based on differences and similarities between different groups' properties, researchers have advanced and applied a range of group typologies and classifications (cf. Aharpour & Brown, 2002; Brewer, 2004; Caporael & Brewer, 1995; Deaux et al., 1995; Fiske, 1992; Hinkle et al., 1989; Lickel et al., 2000; Prentice, Miller, & Lightdale, 1994). For example, Caporael and Brewer (1995) proposed a four-level hierarchical model of group structure.

Drawing on the idea that there are some group configurations that are central to individuals' social activities, they distinguished between dyads (two-individual groups), teams (small interpersonally interacting groups), demes or bands (small interacting communities), and tribes (large groups with shared identity but without constant face to face interactions). As Brewer and Gardner (1996) pointed out, each of these levels "represents different forms of functional interdependence and different types of coordination, with associated differences in construals of self and others" (p. 84).

More recently, Lickel et al. (2000) proposed a group typology that is based on perceiver's intuitive classification of different social groups. Their empirical approach follows the idea that lay people would usually have some initial cognitive structures of knowledge and beliefs about the basic functions of different types of groups, and that such cognitive structures are spontaneously used to process information about each group and the relational principles associated with it. In three studies, participants evaluated a large sample of different groups on several properties and then sorted these groups into categories based on their personal perception about which groups bind together as types. Analyzing their participants' judgments and sorting patterns in the sorting task, Lickel et al. (2000) found four basic group types that differed along a

number of features. The four identified group clusters were: intimacy groups (e.g., family, friends, love partners), task groups (work groups, committees), social category groups (gender, ethnicity, race), and loose association groups (people who like the same music). Both, intimacy and task groups are relatively small groups that have relatively high levels of interaction between members. In contrast, social categories are larger groups that have lower levels of interaction between members. Finally, loose association groups are typically restricted in focus, have only temporary importance, and very low levels of interaction between members.

Lickel et al.'s (2000) studies showed that people generally distinguish between social categories and dynamic groups (Lewin 1948, Wilder & Simon, 1998). As Lickel et al. (2000) noted, "social categories are groups that exist because they identify a certain class of individuals who are perceived to share certain characteristics. Dynamic groups, on the other hand, are bound together by patterns of interdependence rather than similarity" (p. 225). Consequently, I predict that social identification will be more strongly associated with social categories (e.g., gender, race) than with dynamic groups (e.g., task or intimacy groups) because social identification involves the perception of similarity between group members in the characteristics that they share. In contrast, communal and interdependent identification should be primarily associated with dynamic groups because these two types of identification are based on processes of interpersonal interactions between the group members.

Further elaborations by Lickel et al. (2000) on their proposed group typology showed that their findings are consistent with previous research on different types of social identities (Deaux et al., 1995) and different types of interpersonal relationships and principles (Fiske, 1991; Clark & Mills, 1979; Mills & Clark, 1994). The intimacy group type is comparable with Deaux et al.'s (1995) relationships identities cluster,

while the task group type is similar to the vocation/association identities identified by Deaux et al., (1995). In addition, Lickel et al. (2000) suggested that the differences between intimacy and task groups could be further explained in terms of the differences in the relationships and principles that regulate each of these group types. In particular, the interactions in intimacy groups might rest on generosity and communal sharing, which are main features of communal relationships (Clark & Mills, 1979; Mills & Clark, 1994). The interactions in task- oriented groups, on the other hand, might be linked with exchange relationships (Clark & Mills, 1979; Mills & Clark, 1994) that are governed by the rules of equity in the exchange of benefits between members.

As explained earlier in this chapter, communal identification refers to the extent to which people perceive themselves to be in close communal relationships with other group members. Given that such relationships and principles are more likely to be the fundamental core of intimacy groups, I predict that communal identification will be primarily associated with intimacy groups. My idea of interdependent identification, on the other hand, refers to the extent to which people perceive themselves to be in instrumental exchange relationships with other group members. Given that such relationships and exchange principles are the most probable base of interactions in task groups, I predict that interdependent identification will be primarily associated with task groups. In summary, I expect people to show stronger social identification with social category groups, stronger communal identification with intimacy groups, and stronger interdependent identification with task groups. However, I must note here that the above three types of ingroup identification should not be considered as mutually exclusive and in some specific cases individuals could show relatively higher levels on two, or even three, types of identification with the same type of group.

Summary of Hypotheses and Layout of the Present Work

Based on previous literature (Aharpour & Brown, 2002; Ashmore et al., 2004, Bouas & Arrow, 1996; Brown et al., 1986; Cameron, 2004; Dimmock et al., 2005; Ellemers et al., 1999; Henry et al., 1999; Jackson & Smith, 1999; Karasawa, 1991; Leach et al., 2008; Prentice et al., 1994; Roccas et al., 2008; Sellers et al., 1998; Tajfel, 1978, Turner et al., 1984) and my own reasoning, I proposed a distinction between centrality, social, communal, interdependent identification. Centrality and social identification occur at the group level of analysis, and communal and interdependent identification occur at the interpersonal level of analysis. Centrality is operationalized in terms of the importance and salience of the group to self-definition and is similar to constructs proposed by Ashmore et al. (2004), Cameron (2004), Leach et al. (2008), and Roccas et al. (2008). Social identification is operationalized in terms of SIT and SCT's processes of depersonalization and perceived similarity between group members and is similar to constructs proposed by Jackson and Smith (1999), Ashmore et al. (2004), and Leach et al. (2008). Communal identification is based on close, generally altruistic relationships with other group members and is most similar to Cameron's (2004) notion of ingroup ties, although my construct is located more at the interpersonal level than Cameron's construct. Finally, interdependent identification is based on relatively selfish, exchange oriented relationships with the other members of the group and is similar to Henry, et al.'s (1999) construct of behavioural interdependence although, unlike Henry et al.'s construct, interdependent identification is specifically focused on relationships between the self and other group members. I expected significant variations in the strength of these different types of ingroup identification as a function

of culture, gender, target group status, relationship attachment style, and the type of group.

First, I predicted that people from Western countries (e.g., USA, Australia, EU) would have lower social identification and higher communal and interdependent identification than people from non-Western countries (e.g., Asia, Africa, South America). This prediction follows on previous research that indicates cross-cultural differences in individualism/collectivism forms of self-construal (e.g., Gardner et al., 1999; Oyserman et al., 2002), and it is examined in the first three studies that I report in this thesis.

Second, given the conceptual similarities between collective self-construal and social identification (Brewer & Gardner, 1996) and between relational self-construal and communal identification, I predicted that gender differences in self-construal would account for gender differences in type of identification. In particular, based on previous findings in support of the idea that women have more relational self-construal than men, and men have more collective self-construal than women (Baumeister & Sommer, 1997; Cross & Madson, 1997; Gabriel & Gardner, 1999), I predicted that men would show higher levels of social identification and lower levels of communal identification than women. The above hypothesis is tested in the first three studies of the present work.

Third, researchers have shown evidence that ingroup identification increases following low group status (Branscombe, Ellemers et al., 1999; Branscombe, Schmitt, & Harvey, 1999; Ellemers, 1993; Turner et al., 1984) and that minority (low status) group members increase their perception of being similar to others in the group (Simon, 1992; Simon & Brown, 1987). Given that social identification is defined by the perception of similarity between the self and other ingroup members, I predicted that social identification will be significantly higher for individuals included in a lower (as

compared to higher) status groups. This particular hypothesis is closely related to the hypothesis that predicts cross-cultural differences in types of identification and therefore the conceptual arguments of both hypotheses should be considered and evaluated jointly. Hence, considering the proposed cross-cultural differences in social identification, I expected the above effect of group status to be moderated by culture. This unique effect of group status on social identification and the possible moderating role of culture is the main focus of the second study of this work.

Fourth, research has linked relationship attachment theories with group identification (Crisp et al., 2009; Gabriel et al., 2005; Mikulincer et al., 1998). In particular, Crisp et al. (2009) provided evidence that “under control conditions participants’ attachment anxiety was positively correlated with group identification” (p. 121). There is also evidence that avoidant individuals score lower on a measure of relational self-construal (Footnote 1, Gabriel et al., 2005, p. 1571) than do nonavoidant individuals. In addition, a study by Mikulincer et al. (1998) revealed that, relative to people with secure attachment style, people with avoidant attachment style reduced their perceived self-to-ingroup similarity whereas anxious–ambivalent people increased it. Given this evidence, I predicted that secure individuals would report higher communal and social identification than avoidant individuals, and that anxious/ambivalent individuals would score higher on social identification than secure individuals. Study 3 of the present research specifically examines these predictions.

Finally, there is wide agreement that social groups differ in their defining features and relationship principles (Brewer & Gardner, 1996; Lickel et al., 2000; Mills & Clark, 1994; Prentice et al., 1994). Recently, Lickel et al., (2000) introduced an intuitive group typology that distinguished between social category, intimacy, and task groups. I predicted that particular types of ingroup identification will be more or less

associated with particular types of groups. More specifically, I predicted that people would show higher social identification with social category groups, higher communal identification with intimacy groups, and higher interdependent identification with task groups. The main aim of Studies 4 and 5 in this work will be to investigate and provide evidence in support of this type of group-type of ingroup identification hypothesis.

It should be noted here that the approach chosen in this research does not specifically reflect the potential impact that contexts and situation may have on scale-based assessments of identification. Although social context and situation are often seen to determine which aspect of one's identity will be made more assessable at the particular moment (Haslam, Postmes, & Ellemers 2003), many facets of these factors are difficult to control and measure in primarily internet based research like the present one. Therefore, participants in all studies were simply asked to think about a group without referring to a specific situation and social context in attempt to minimize the effect of these factors on identification. Such an approach is a first step in identifying the core, content independent, process of ingroup identification. In the debate between general and context dependent investigation of ingroup identification, my work follows the idea that researchers should first identify the basic (context independent) process and then examine how this process changes in relation to context and situation. However, given that group identification is likely to be a context-dependent construct, further research in this area should attempt to assess (if not control) the context and examine its relationship with different types of ingroup identification.

In summary, the primary objective of the present research is to investigate the specific relationships between a number of social psychological variables (e.g., culture, gender, attachment style) and different types of identification with social group. A key point of the study is to review and synthesise previous literature dealing with ingroup

identification and to underline important points of agreement or disagreement about some core components of the identification process. The majority of past research in the area has extensively focused on establishing the nature and the number of different dimensions (types) of identification but the complexity of the investigated constructs has often led to conceptual confusion and discrepancies in the findings. My research attempts to clarify these matters by offering an integrative theoretical conception of four core types of ingroup identification that takes into account the social identity and the interdependence perspectives toward identity (Tajfel, 1978; Turner et al., 1987; Sherif, 1967; Rabbie et al., 1989). My work also focuses on the second order question of how the strength of one or another type of ingroup identification is related to culture, gender, ingroup status, attachment style, and the type of group that is salient. So far, this second-order issue has received much less attention from the scholars in the area and the present research seeks to address this gap in the literature by investigating a set of potential predictors of identification. Revealing some important relationships between the above phenomena will extend our knowledge of the way that individuals identify with their social groups and will help researchers develop more systematic ideas and clearer conceptions about the factors that shape the identification process.

CHAPTER TWO: CONSTRUCTING THE CENTRALITY, SOCIAL, COMMUNAL, AND INTERDEPENDENT IDENTIFICATION SCALE

Overview

This chapter reports the results of Study 1. In this study I constructed a scale that measures centrality, social, communal, and interdependent identification, and investigated the distinction between these four different types of identification with groups. The general aim was to examine the psychometric properties of the newly designed Centrality, Social, Communal, and Interdependent Identification Scale (CSCIIS) and to investigate whether differences in self-construal, relationship orientation, gender, and culture might predict each type of identification. The results provided initial support for the validity and the reliability of the CSCIIS, revealed cross-cultural differences in ingroup identification, and supported predictions regarding the correlations between particular types of relationships orientation and particular types of identification with social groups.

Introduction

Kashima et al. (1995) and Brewer and Gardner (1996) distinguished between personal, relational, and collective self-construal. Relational self-construal refers to the individual's sense of self as having close connections with others in communal relationships (communal identification), and collective self-construal refers to the individual's sense of self as an interchangeable member of a social group (social identification). Two self-report measures that assess these two different types of self-construal are Cross, Bacon, and Morris' (2000) Relational-Interdependent Self-

Construal Scale and Gabriel and Gardner's (1999) Collective-Interdependent Self-Construal Scale. Given the theoretical parallel between relational self-construal and communal identification, I expected that relational self-construal would show the strongest positive correlation with communal identification. Given the theoretical parallel between collective self-construal and social identification, I predicted that collective self-construal would show the strongest positive correlation with social identification.

Based on the distinction between communal and exchange relationships (Clark & Mills, 1979), Clark, Ouellette, Powell, and Milberg (1987) and Mills and Clark (1994) developed and validated two scales that measure people's orientation toward relationships. The Communal Identification Scale assesses individuals' communal orientation, and the Exchange Orientation Scale assesses individuals' exchange orientation. Given the theoretical parallel between communal orientation and communal identification, I hypothesized that communal orientation would show the strongest positive correlation with communal identification. Furthermore, given the theoretical parallel between exchange orientation and interdependent identification, I hypothesized that exchange orientation would show the strongest positive correlation with interdependent identification.

Researchers have identified gender differences in the relational and collective forms of self-construal. In particular, Cross and Madson (1997) reviewed evidence supporting the idea that women tend to have a more relational self-construal than men. Following on from this work, Baumeister and Sommer (1997) and Gabriel and Gardner (1999) proposed that men tend to have a more collective self-construal than women. Based on this literature and the theoretical parallels between relational and collective self-construal and communal and social identification, I predicted that women would

report higher levels of communal identification than men, and men would report higher levels of social identification than women.

Researchers have found substantial evidence of cultural differences in self-construal (see Oyserman et al., 2002). Typically, people from Western countries (e.g., North America, Australia) perceive themselves and others to be relatively independent and individualistic, whereas people from non-Western countries (e.g., China, India) perceive themselves and others to be more collective. Hence, people from Western and non-Western cultures have the potential to prefer relatively different types of ingroup identification which correspond best to their psychological needs in the particular social context. Given the close theoretical relationship between self-construal and ingroup identification, I expected that people from Western cultures will have higher communal and interdependent identification than people from non-Western cultures because Westerners are more likely to choose types of identification that will allow them to retain their sense of individuality in the group (i.e., communal and interdependent). People from non-Western cultures, on the other hand, will report higher levels of social identification and centrality than people from Western cultures because non-Westerners are far less concerned in retaining their sense of individuality in the group. Therefore, non-Westerners are more likely to choose types of identification which emphasize the process of depersonalization and the perception of similarity between group members (i.e., social identification), and stress the importance of the group in individual's self-concept (i.e. centrality).

Method

Overview

The research was conducted using an online questionnaire, which included the new CSCIIS together with a range of previously validated measures of self-construal, relationship orientation, and self-esteem. I also included several items that allowed the investigation of cross-cultural variations in the sample. (e.g. “Please type the country that you lived in for the longest period during your childhood”).

Compared with the traditional paper and pencil methods, web-based psychological research has many potential benefits and provides more opportunities for creativity (Birnbaum, 2004; Skitka & Sargis, 2006). The use of the internet as a psychology lab helps researchers to overcome some of the most common problems related to recruitment, sample size, data processing, and cost. Online human research can easily employ large and diverse samples which are more representative than the student participant pool commonly used in psychology testing. The data obtained via internet allows better generalization and makes statistical results and model fitting more powerful. Although some weaknesses of web-based research such as multiple submissions and dropouts should be carefully managed, many researchers consider the benefits of internet testing to exceed its disadvantages.

Participants

My aim was to collect data from 200 participants in order to have a sufficiently large sample of participants to perform an exploratory factor analysis on the CSCIIS. Mundfrom, Shaw, and Ke (2005) found that “there is no shortage of recommendations regarding the appropriate size to use when conducting a factor analysis. Suggested minimums for sample size include from 3 to 20 times the number of variables and absolute ranges from 100 to over 1,000” (p. 159). Hence, following Mundfrom et al.’s

(2005) approach to determining sample sizes I decided on a figure of 200 participants that exceeds Gorsuch (1983) and Kline's (1998) recommended minimum sample size of 100. Furthermore, this sample size is consistent with Comrey and Lee's (1992) description of 200 participants as being "fair" (p. 200) and Russell's (2002) review of factor analyses published in *Personality and Social Psychology Bulletin*, which found that 62% of studies used less than 200 participants.

I recruited 283 participants from the global internet community and the University of Newcastle's campus over a two month period. However, in the analyses I used only the data from 193 participants aged 18 years or over who had fully completed the questionnaire. Following rules set in the study's information statement, the 90 participants who did not fully completed the questionnaire were considered as having withdrawn from the research at some point and their data was deleted. The gender breakdown was 58 (31.10%) male and 135 (69.90%) female. The average age was 25.84 years ($SD = 10.29$). Based on country of origin, cultural distribution was 90.5% Westerners and 9.5% non-Westerners.

Measures

The Centrality, Social, Communal and Interdependent Identification Scale

In order to provide a flexible, cross-situational measure of ingroup identification, I intended to develop a scale that measures identification with social groups in general. This type of approach has been successfully used in a number of previous studies (i.e., Brown et al. 1986; Ellemers et al. 1999; Luhtanen & Crocker) and is closer to the way groups are perceived in everyday life. In most social situations, people might be expected to think about and identify with more than one group at the same time. However, I wanted to design the scale so that researchers could easily adapt it to measure identification with specific social groups (e.g., gender). Consequently, I

ensured that all items had the potential to refer to “my groups” (general measure) or “my group” (specific measure). Given the generality of the target group in the CSCIIS, an additional item in the questionnaire assessed the type of groups that participants thought about when responding. The item was worded as follows: “Please list the top three groups that you were thinking about as you responded to the items above”. Participants answered in a ten-character free response format for each of the three groups.

Following previous similar multidimensional measures of group identification (e.g., Cameron, 2004; Luhtanen & Crocker, 1992), I aimed to construct a final scale that consisted of 26 items in total. In order to achieve this goal, I generated an item pool that contained twice the number (52) of final items. The main idea was to have 6 items measuring each of the investigated four different types of identification and 2 items measuring global identification which I believed to be useful for determining the relative contributions of each type of identification to overall identification (Cameron, 2004).

The development of the item pool began with a selection of generally suitable items from several previously validated measures, including Clark et al.’s (1987) Communal Orientation Scale, Mills and Clark’s (1994) Exchange Orientation Scale, Gabriel and Gardner’s (1999) Collective-Interdependence Self-Construal Scale, Cross et al.’s (2000) Relational-Interdependent Self-Construal Scale, Singelis’ (1994) Self-Construal Scale, Cameron’s (2004) Three-Factor Social Identification Scale, Brown et al.’s (1986) Identification Scale, Ellemers et al.’s (1999) Social Identification Scale, Karasawa’s (1991) Identification Scale, Prentice et al.’s (1994) Attachment Scale, Luhtanen and Crocker’s (1992) Collective Self-Esteem Scale, Lickel, Rutchick, Hamilton, and Sherman’s (2006) Relational Style Scale, Hogg and Hains’ (1996) Group

Identification Scale, Henry et al.'s (1999) Tripartite Measure of Identification, Triandis, McCusker, and Hui's (1990) Individualism-Collectivism Scale, and Riordan and Weatherly's (1999) Employees' Identification Scale. I also added several of my own statements that were intended to reflect the different types of ingroup identification. In total, I had an item pool of 115 items divided into several major groups.

The reduction of the items was performed in three key stages. First, I excluded items that were inappropriate (e.g., "How well do you know the members of this group"), ambiguous (e.g., "I am not especially sensitive to other people's feelings"), or that reflected different phenomena, such as public collective self-esteem (e.g., "It is important to me that others think highly of my group"). Second, I adapted some of the remaining items so that they made reference to groups in general without mentioning particular group types, and I modified the wording of some items in order to include an equal number of positively- and negatively-worded items in the final item pool. Finally, I modified statements in order to keep them reasonably short and simple. This last step was taken in order to ensure that the CSCIIS would be clear and applicable to non-native English speakers.

For centrality, I chose items that reflected either the subjective importance or the salience of the group. Example items included "My groups are an important part of my self-image" and "The fact that I am member of my groups rarely enters my mind". For the social identification subscale, I chose items that reflected the perceived similarity of the self to other group members and the perception of being a prototypical member of the group. Example items from this set included "The people in my groups are quite different from me" and "I am quite similar to the other people in my groups". For the communal identification subscale, I used items that referred to close relationships, friendship, family, empathy, and social reflection (Tesser, 1999). Example items

included “I have fairly superficial relationships with the other people in my groups” and “I can’t really empathize with the other people in my groups”. For the interdependent identification subscale, I selected items that focused on dependency, instrumentality, and the importance of reciprocation with respect to other group members. Example items included “I rely a lot on the other people in my groups” and “When I give something to another person in my groups, I generally expect something in return”. Finally, for the global identification subscale, I chose items that reflected individuals’ identification with social groups in general. Example items from the global identification subscale are “I identify with my groups” and “I identify with the other people in my groups”.

After completing the item reduction process, I ended with a 52-item scale that was used in this study (Appendix A). The scale consisted of 12 items measuring each of the four different types of identification and four items measuring general identification (e.g., “I identify with my group”). Items were arranged in a single random order, and participants responded to each statement using a 5-point Likert-type scale (1 = *Strongly Disagree*, 5 = *Strongly Agree*).

Self-Construal Measures

I measured self-construal using Cross et al.’s (2000) Relational-Interdependent Self-Construal Scale (RISC) and Gabriel and Gardner’s (1999) Collective-Interdependent Self-Construal Scale (CISC).

Cross et al.’s (2000) Relational-Interdependent Self-Construal Scale consists of 11 statements that refer to one’s self-perception in relation to others. Example items include “My close relationships are an important reflection of who I am” and “When I establish a close friendship with someone, I usually develop a strong sense of identification with that person”. Cross et al. showed that their scale had a single factor

structure, good internal consistency (α s ranged from .85 to .90), and good test-retest reliability (r s ranged from .63 to .73 over a two month period). The scale also has good convergent validity, correlating positively with the interdependent subscale of Singelis' (1994) Self-Construal Scale ($r = .41$).

Gabriel and Gardner's (1999) Collective-Interdependent Self-Construal Scale consists of 10 statements that are closely based on Cross et al.'s (2000) Relational-Interdependent Self-Construal Scale. The key difference between the two scales is that Gabriel and Gardner's version replaces all references to close relationships with references to social groups. Hence, their scale provides a measure of *collective*, rather than *relational-interdependent*, self-construal. Example items include "The groups I belong to are an important reflection of who I am" and "When I join a group, I usually develop a strong sense of identification with that group". Gabriel and Gardner found that their scale had good internal consistency ($\alpha = .90$). Gabriel (personal communication, 25th October 2004) reported that their scale only showed moderate correlations with Cross et al.'s (2000) scale. Given the large degree of similarity in the wording of the items used in these two scales, these correlations provided some evidence of divergent validity.

Measures of Orientation Toward Relationships

Participants' communal and exchange orientation toward relationships was measured using Clark et al.'s (1987) Communal Orientation Scale (COS) and Mills and Clark's (1994) Exchange Orientation Scale (EOS).

Clark et al.'s (1987) Communal Orientation Scale is a measure of people's communal orientation towards relationships which consists of 14 descriptive statements. Example items include "I expect people I know to be responsive to my needs and feelings" and "I often go out of my way to help another person". Clark et al. (1987)

found that the communal orientation scale has adequate internal consistency ($\alpha = .78$) and adequate test-retest reliability ($r = .68$ over a two month period). In addition, Clark et al. found that their scale has good convergent validity, correlating positively with measures of conceptually overlapping constructs such as Berkowitz and Lutterman's (1968) measures of social responsibility ($r = -.36$) and Mehrabian and Epstein's (1972) measures of emotional empathy ($r = .58$).

Mills and Clark's (1994) Exchange Orientation Scale assesses the extent to which individuals possess an exchange orientation toward relationships. The scale consists of nine items. Example items are "When I give something to another person, I generally expect something in return" and "I wouldn't feel exploited if someone failed to repay me for a favor" (reverse scored). Hughes and Snell (1990) reported that the scale has good internal consistency ($\alpha = .79$) and adequate test-retest reliability ($r = .70$).

Self-Esteem Measure

Self-esteem was measured using Rosenberg's (1965) Self-Esteem Scale (SES). The SES is one of the most popular and widely used self-report measures of global self-esteem in social science research. It consists of 10 statements that are related to overall feelings of self-worth or self-acceptance. Example items include "I am able to do things as well as most other people" and "I wish I could have more respect for myself" (reverse scored).

Blascovich and Tomaka (1991) have found that the scale generally has very good reliability and validity across a large number of different sample groups. Test-retest correlations are typically in the range of .82 to .88, and Cronbach's alpha for various samples are in the range of .77 to .88.

Procedure

Following Birnbaum's (2004) recommendations regarding internet research, I conducted the study online using a purpose-built questionnaire. This method allows participants to complete the study in privacy, at their own convenience, and at any time up until the conclusion of the project. Research has shown that the results obtained via internet administration replicate those of more traditional paper-and-pencil type questionnaires (Birnbaum, 2000), and the validity of results derived from internet-based studies has been shown to be acceptable (Epstein & Klinkenberg, 2002).

All participants had the opportunity to enter a prize draw for an electronic gift certificate worth US\$100 redeemable from an online store with a 1 in 50 chance of winning this prize. Participants who wanted to enter into the prize draw had to submit their email address. Participants who did not want to enter the prize draw did not have to submit their email address. The e-mail addresses were separated from each person's data so that the data remained anonymous. Prize winners were advised by email within two days of the draw being conducted.

All participants were anonymous. The only personal details collected were age, gender, and some details about participants' cultural background. The instructions for the general version of CSCIIS and for the whole questionnaire asked participants to rate their identification with reference to examples of a variety of different types of groups, including intimacy groups (family, close friendships), task groups (juries, study groups), and social category groups (ethnicity, nationality, religion). I based these instructions on Luhtanen and Crocker (1992, p. 305) and drew examples of each type of group from Lickel et al. (2000):

We are all members of different social groups. These social groups might refer to intimate groups such as family, friends, romantic partners, gangs, etc. They might also refer to task groups such as study groups, sports teams, work groups,

committees, etc. Or they might refer to social categories based on gender, nationality, religion, ethnicity, etc. We would like you to consider your memberships in ALL of these different types of social groups and respond to the following statements on the basis of how you feel about these groups and your membership in them. There are no right or wrong answers to any of these statements; we are interested in your honest reactions and opinions. Please read each statement carefully, and respond by using the following scale.

The entire questionnaire consisted of 118 questions and took approximately 40 minutes to complete. The CSCIIS was presented first, followed by CISC, RISC, COS, EOS, and SES. I expected a significant variation in participants' cultural backgrounds. Therefore I paid particular attention to the issue of measuring cultural differences in the sample. The key questions to participants were (1) "Please type your nationality" (2) "Please type the country that you lived in for the longest period during your childhood (0 – 16 years old)", (3) "Please type the language that you feel most comfortable speaking", and (4) "Please type the cultural background with which you identify the most". The above measure of cultural background incorporates a variety of measures that tap both objective and subjective information at the level of specific countries and languages. These measures allowed the investigation of cross-national, intranational, and cross-linguistic cultural variations as well as providing information about broader "Western" and "non-Western" cultural variations.

Results

Factor Analysis and CSCIIS's Psychometric Properties

The main goals of this study were to test the distinction between centrality, social, communal and interdependent identification and to reduce the number of item in CSCIIS providing validity and reliability for the new scale.

First, I conducted an exploratory factor analysis to investigate the factor structure of the designed scale. As recommended by Russell (2002), I conducted a principal axis factor analysis with no rotation. Thirteen factors with eigenvalues larger than one were extracted. In contrast, the scree plot test (Cattell, 1966) suggested a possible four factor solution (see Figure 1).

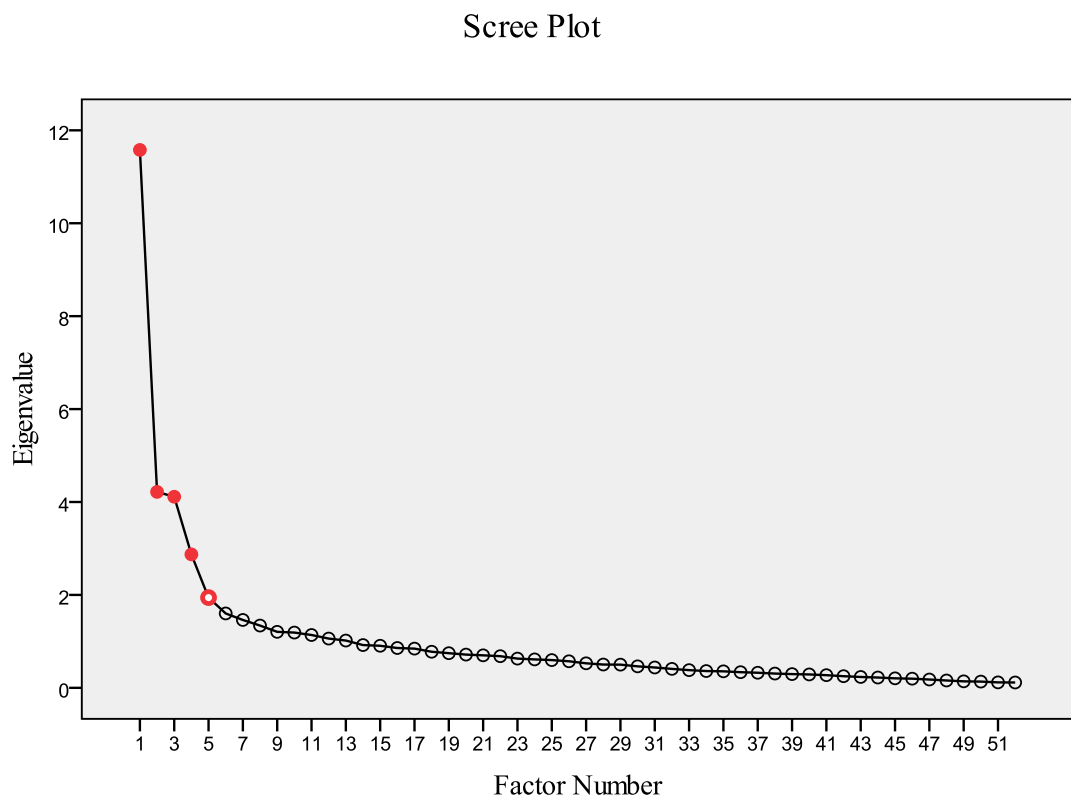


Figure 1. Eigenvalues as a function of factors extracted from the CSCIIS

However, a more precise look at the scree plot revealed that the fifth factor was also relatively distinct and moderately separated from the remaining factors at the elbow. Given that Wood, Tataryn and Gorsuch (1996) recommended that researchers should avoid underfactoring even if this could lead to overfactoring, I decided to retain this factor in the final extraction. This decision was additionally based on the results of a parallel analysis (Horn, 1965; Watkins, 2000) which revealed that there are five factors

with eigenvalues larger than the corresponding criterion eigenvalues for a random data set with the same parameters (Table 1).

Table 1

Comparison Between Criterion Eigenvalues From Parallel Analysis and the Eigenvalues From the Current Principal Axis Factor Analysis

Factor Number	Actual Eigenvalue	Criterion Eigenvalue from Parallel Analysis	Outcome
1	11.58	2.19	Retain
2	4.22	2.06	Retain
3	4.11	1.97	Retain
4	2.87	1.90	Retain
5	1.94	1.82	Retain
6	1.60	1.76	Drop
7	1.46	1.70	Drop

I expected some of the factors to be correlated with one another because they represent different aspects of the broader phenomenon of ingroup identification. In particular, I expected that the global measure of identification might correlate positively with all of the other subscales, and that centrality, social, communal, and interdependent identification might be correlated, even slightly, with one another. In addition, it was likely that the correlation between communal and interdependent identification could be negative, because there are many factors that have opposite effects on communal and exchange relationships (Mills & Clark, 1994) which are in the core of these two types of identification. I used a promax rotation in order to accommodate these potential correlations, and I forced a five-factor solution.

The first factor accounted for 22.27% of the variance and had an eigenvalue of 11.58. Only items measuring social identification showed the strongest positive loadings on this factor, ranging from .51 to .82. I labeled this factor social identification.

The second factor accounted for 8.11% of the variance and had an eigenvalue of 4.22. Fourteen items measuring all types of identification, except salience, showed the strongest positive loadings on this factor, ranging from .66 to .34. I noted that all of the items that loaded on to this factor were positively worded. As Russell (2002) has noted, this situation can be an indication that the factor represents a “method factor” that accounts for a common style of responding to positively-worded items. Leaving the investigation of the above possibility for further studies, I labeled this factor global identification.

The third factor accounted for 7.90% of the variance and had an eigenvalue of 4.11. Similar to Factor 2, it contained items measuring the four different types of identification, global identification, and importance. All items were negatively worded which again suggested the possibility that this factor could be a method factor. However, given that three communal items loaded highest, I labeled this factor communal identification.

The fourth factor accounted for 5.52% of the variance and had an eigenvalue of 2.87. Items measuring communal identification, importance, and salience showed the strongest positive loadings on this factor, ranging from .70 to .38. However, all six salience items of CSCIIS loaded on this factor and four of these salience items had the highest loadings. Therefore, I labelled this factor salience.

The fifth factor accounted for 3.74% of the variance and had an eigenvalue of 1.94. Three items measuring interdependent identification and two communal identification items loaded on this factor, ranging from .71 to .39. With two of the interdependent identification items loading most strongly on the factor, I labeled this factor interdependent identification.

The Revised CSCIIS

As it was mentioned previously, I aimed to have six items measuring each of centrality, social, communal, and interdependent identification, and two items measuring global identification. The results for the social identification factor were very clear with nine social identification items loaded on it. However, the factor analysis results revealed a partially different pattern for the rest of the factors. Importance and salience items did not appear to load on the same factor. The importance items were spread among three factors whereas all salience items loaded on a single factor. The expected global and communal identification factors were also ambiguous, with only positive and negative items loading on these factors respectively. This left open the possibility that these factors represented method factors and/or are factors that represent socially desirable (Factor 2) and socially undesirable behaviours (Factor 3). However, I felt that it would be premature to abandon these constructs on the basis of this single set of results. Consequently, using item factor loadings larger than .40 (in absolute value) as a cut-off criteria, I selected the best four items for each of the social, communal, interdependent, global, and salience subscales of CSCIIS. Hence, I retained 20 items from the initial 52 items (Table 2).

Two additional points should be noted here. First, to create the global identification scale, the two importance/centrality items that loaded highest on Factor 2 were united with the two highest loading global identification items. Given the fact that researchers have frequently included importance in their measure of group identification (Cameron, 2004; Ellemers et al., 1999; Sellers et al., 1998) this approach was consistent with the literature.

Second, just four items tapping interdependence loaded on the interdependence subscale. Only three of them, however, loaded above the .40 cut-off criteria. Therefore,

the interdependence item that loaded just below this cut-off criteria (.39) was also accepted for the interdependence subscale.

Table 2

Items and Factor Loadings of the CSCIIS After Item Reduction

Item	Factor				
	1	2	3	4	5
<i>Social identification</i>					
The people in my groups are quite different from me.*	.82				
I am not the same as the other people in my groups.*	.80				
I am quite similar to the other people in my groups.	.79				
There is very little difference between myself and other members of my groups.	.68		-.42		
<i>Global identification</i>					
I identify with the other people in my groups.		.58			
My groups are an important part of my self-image.		.53			
My groups are important to my sense of who I am.		.50			
I identify with my groups		.46			
<i>Communal identification</i>					
I have fairly superficial relationships with the other people in my groups.*			.66		
I don't have many close friends in my groups.*			.63		
I can't really empathize with the other people in my groups.*			.59		
I don't care about the people in my groups.*			.46		
<i>Salience</i>					
The fact that I am member of my groups rarely enters my mind.*				.70	
I often think about the fact that I am in my groups.				.64	
I don't think very much about my groups.*				.53	
I often think about what it means to be in my groups.				.51	
<i>Interdependent identification</i>					
When I give something to another person in my groups, I generally expect something in return.		.41			-.71
I do not expect anything in return for favours I have done for the other people in my groups.*					-.62
I would sacrifice my self-interest for the benefit of the other people in my groups.*					-.48
I don't bother to keep track of benefits I have given to other members of my groups.*					-.39

Note. Items with asterisk are reverse scored. The cut-off criteria used for including factor loadings in the table is > .40.

Reliability and Interitem Correlations

With regards to scale reliability, Clark and Watson (1992) noted that, "although Nunnally (1978) recommended minimum standards of .80 and .90 for basic and applied research, respectively, it is not uncommon for contemporary researchers to characterize reliabilities in the .60s and .70s as good or adequate (e.g., Dekovic, Janssens, & Gerris, 1991; Holden, Fekken, & Cotton, 1991)". Consistent with these recommendations, Cronbach's alphas for each subscale were as follow: social identification $\alpha = .81$, global identification $\alpha = .81$, communal identification $\alpha = .69$, salience subscale $\alpha = .73$, and interdependent identification $\alpha = .63$. The CSCIIS total score showed an α of .72.

However, Clark and Watson (1992) also stated that Cronbach's alpha is not the perfect measure of internal consistency and therefore the average interitem correlation should be also considered by the scale developers as a more precise indicator. Consistent with their recommendations that an average interitem correlation in the range of .15-.50 is desirable, the mean interitem correlations for the CSCIIS subscales were .51 for the social identification scale, .52 for the global identification scale, .35 for the communal identification scale, .41 for the salience scale, and .30 for the interdependence identification scale.

Convergent and Divergent Validity

Table 3 shows the key correlations with regards to convergent and divergent validity of CSCIIS. As expected, the global identification subscale showed significant positive correlations with all of the other identification subscales (r s ranging between .31 and .44, p s < .01) except with the interdependent identification subscale.

Table 3

Correlations Between Established Measures and CSCIIS's Subscales

	COS	SES	CISC	Social	Communal	Interdepend ent	Salience	Global	CSCIIS
RISC	.49**	.06	.70**	.28**	.32**	-.11	.38**	.60**	.57**
EOS	-.20**	-.17*	.08	-.01	-.19**	.60**	.18*	.33	.21**
COS		.18*	.45**	-.01	.39**	-.31**	.19**	.36**	.24**
SES			.08	.04	.33**	-.14	-.14*	.01	.04
CISC				.31**	.33**	-.07	.47**	.71**	.69**
Social					.08	.00	.07	.33**	
Communal						-.32**	.08	.31**	
Interdependent							.01	-.12	
Salience								.44**	

Note: N = 193. ** Correlation is significant at the .01 level.* Correlation is significant at the .05 level.

Consistent with predictions, the interdependent identification subscale showed a significant positive correlation with the Exchange Orientation Scale ($r = .60, p < .01$) and a significant negative correlation with the Communal Orientation scale ($r = -.31, p < .01$). Also consistent with predictions, the communal identification subscale showed a significant positive correlation with the Communal Orientation Scale ($r = .39, p < .01$) and a significant negative correlation with the Exchange Orientation scale ($r = -.19, p < .01$). Although Mills and Clark (1994) argued that the communal orientation scale and the exchange orientation scale are not correlated, the results of the present research did show a negative correlation between these two measures. Given that communal and interdependent identification are based on the distinction between communal and exchange relationships, the significant negative correlation between the communal and interdependent subscales of CSCIIS ($r = -.32, p < .01$) initially suggested that I do have a valid measures of communal and interdependent identification.

In terms of divergent validity, the overall CSCIIS score and the scores of social, interdependent, and global identification were not found to correlate significantly with the SES ($r > .04, p > .05$). Self-esteem showed only small negative correlation with the salience subscale of CSCIIS ($r = -.14, p = .05$) and a moderate positive correlation with the communal identification subscale ($r = .33, p < .01$). It should be noted here that the moderate correlation between communal identification and SES was in the same range as the correlation between SES and ingroup ties reported by Cameron (2004) in relation to his tripartite model of social identification ($r = .40, p < .01$). This fact could be seen as reflecting the similarities between my idea of communal identification and Cameron's factor of ingroup ties. However, as it was explained in Chapter 1, communal identification and ingroup ties have significant conceptual differences and are distinct constructs.

Relational self-construal measured with RISC scale and collective self-construal measured with CISC scale both correlated significantly with all subscales of CSCIIS (r s ranging between .28 and .71, p s < .01) except with the interdependent identification subscale. The fact that the global identification subscale correlated highest with RISC and CISC could be because the items in all three measures stress the importance of the identity to the self. The above results did not support the initial expectations that relational self-construal would correlate most strongly with communal identification, and that collective self-construal would correlate most strongly with social identification. However, the very high correlation ($r = .70$, $p < .01$) between RISC and CISC in this study reveals that they seem to measure a similar construct and questions the divergent validity of these self-construal measures.

Type of Group and Type of Identification

As a preliminary test of one of the key hypotheses regarding the relation between different types of groups and different types of ingroup identification, I investigated which groups participants were considering when completing the questionnaire. I expected to find a positive correlation between social identification and the extent to which people think about category-based groups, a positive correlation between communal identification and thinking about intimacy groups, and a positive correlation between interdependent identification and thinking about task groups. To test these predictions, I analyzed the data from a single item that asked participants to type the top three groups that they were thinking about when they responded to the CSCIIS statements (e.g., “Please list the top three groups that you were thinking about as you responded to the items above”). Based on Lickel et al.’s (2000) group taxonomy, I created three new variables called category group (e.g., women, gays, Blacks), intimacy group (e.g., families, romantic partners, friends) and task group (e.g., co-

workers, study groups, committees). Then, I assumed that the first listed group was most important to the self and so I coded it with a value of 3, the second group was less important to the self and so I coded it with a value of 2, and the last group was the least important group and so I coded it with a value of 1. For example, if participant A indicated that he/she thought about friends first, then colleagues, and then family, then I code this response as a value of 4 in the intimacy variable (3 for friends plus 1 for family), 2 in the task variable (for colleagues), and 0 in the category variable. This approach treats participants' responses as repeated measures rather than independent responses, leading to a more powerful analysis of this data. In addition, it bases ratings on the "first is more important" idea. More salient or important items are usually recalled early during thought-listing tasks (Cacioppo & Petty, 1981) like the one in the present research. I found that people were mainly thinking about intimacy groups followed by task groups. Only 22 participants listed category groups in their answers. These results are consistent with Lickel et al.'s (2000) findings that group types differ in the way they are perceived as important by the individuals. Lickel et al. found that people valued their membership in intimacy groups significantly higher than their membership in any other types of groups, and that social category groups were valued less than intimacy and task groups. However, as the authors pointed out, it is unclear why this effect may have occurred and it is doubtful "that people always value social category memberships (such as race, ethnicity, and gender) less than they do their memberships in intimacy and task groups" (p. 243). Further research may try to examine this issue in greater detail.

I conducted a correlational analysis, using the newly created intimacy, task, and category variables and the CSCIIS subscales (Table 4).

Table 4

Correlations Between Different Types of Groups and Different Types of Ingroup Identification

	Social	Communal	Interdependent	Salience	Global
Category	-.11	-.06	.03	.04	-.03
Intimacy	.10	.31**	-.20**	-.04	.15*
Task	-.11	-.14*	.11	.04	-.09

Note: N=193. ** Correlation is significant at the .01 level. * Correlation is significant at the .05 level.

As predicted, the intimacy group index showed a significant positive correlation with the communal identification subscale ($r = .31, p < .01$) and significant negative correlation with the interdependent identification subscale ($r = -.20, p < .01$). There was also a significant correlation with the global identification subscale ($r = .15, p < .05$). The task group index showed a significant negative correlation with the communal identification subscale ($r = -.14, p < .05$) and marginally positive correlation with the interdependent identification subscale ($r = .11, p = .14$). There were no significant correlations between the category group index and any of the CSCIIS subscales which can be explained with the fact that that only a few participants provided category groups in their answer ($M = 0.33$). The above correlations of particular types of groups with particular types of ingroup identification provided additional support for the validity of the distinction between centrality, social, communal, and interdependent identification.

Variations in CSCIIS Subscales as a Function of Gender and Culture

I carried out an independent samples *t* test and one-way ANOVA using gender as an independent variable and the four subscales of CSCIIS as dependent variables.

Contrary to predictions, no gender differences in type of identification were found ($ps > .05$).

I used a different approach to test predictions regarding the relationship between culture and types of identification. The questionnaire included several items that were intended to measure cultural differences in the sample. In particular, participants indicated their nationality, their country of origin, the language they felt most comfortable speaking, and the cultural background with which they identified the most. Two independent coders were appointed to categorize participants' responses to these nationality, country, language, and culture items as either Western or non-Western using criteria based on Oyserman et al.'s (2002) meta-analysis of cross-cultural differences in collective self-construal.

The interrater reliability between the two coders was more than satisfactory: The percentage of judgments on which coders' evaluations matched ranged between 70.5% and 98.4%. The correlation between the two coders for each variable was significant in all cases (r s ranging from .83 to .91, $ps < .01$). I also calculated Cohen's kappa statistic in order to control for chance matches (Trafimow, Triandis & Goto, 1991). A kappa value of 1 indicates perfect agreement, and a value of 0 indicates that agreement is no better than chance. Cohen's kappa for the four variables ranged between 0.83 and 0.91.

The above results indicated a high degree of consistency in the degree to which the two coders had applied the coding criteria to the data. There were very few differences between the two data sets. Consequently, I used the data from one of the coders for the analysis. I performed four independent samples t tests on the cultural data obtained from the four items that tapped participants' cultural differences. Each of these t tests had respectively nationality, country of origin, language, and cultural background as an independent variable and the subscales of CSCIIS as dependent variables. Based

on nationality, Westerners ($M = 3.84$) had significantly higher communal identification than non-Westerners ($M = 3.51$), $t(138) = 2.06$, $p < .05$. Non-Westerners ($M = 3.07$) had significantly higher social identification than Westerners ($M = 2.70$), $t(138) = -1.99$, $p < .05$. No other significant differences were found on the other CSCIIS scales ($ps > .05$). Based on country of origin, non-Westerners ($M = 3.69$) had significantly higher salience than Westerners ($M = 3.18$), $t(188) = -2.74$, $p < .01$. No other significant differences were found on the other CSCIIS scales ($ps > .05$). Based on language, non-Westerners ($M = 3.29$) had significantly higher social identification than Westerners ($M = 2.80$), $t(186) = -2.06$, $p < .05$. No other significant differences were found on the other CSCIIS scales ($ps > .05$). Based on cultural background, Westerners ($M = 3.86$) had significantly higher communal identification than non-Westerners ($M = 3.52$), $t(145) = 2.26$, $p = .03$, and non-Westerners ($M = 3.52$) had significantly higher social identification than Westerners ($M = 3.13$), $t(145) = -2.31$, $p = .02$. In summary, Westerners showed significantly higher communal identification than non-Westerners, and non-Westerners showed significantly higher social identification and salience than Westerners. No interaction between gender and any of the measures of culture were found in regards to all investigated types of ingroup identification ($ps > .05$).

In order to provide a more reliable analysis of the effects of culture on CSCIIS's subscales, I created a single continuous index of culture based on the data from the nationality, country, language, and culture items. There was a high degree of consistency in the coding of participants as Western and non-Western based on nationality, country of origin, cultural background, and language (Cramer's $V \geq .71$, $ps < .01$). All scores from the nationality, country, language, and culture responses were summed in a variable to form an index of "Westernness". Scores on this index could range from 1 to 4, with highest scores indicating that the participant was coded as

"Westerner" on all four criteria. I performed a correlational analysis using this global culture index and the CSCIIS subscales. Consistent with the previous analysis, Westernness showed a significant positive correlation with the communal identification subscale ($r = .16, p = .03$) and a significant negative correlation with the social identification subscale ($r = -.15, p < .05$) and salience subscale ($r = -.19, p = .01$).

Discussion

Validity and Reliability of the CSCIIS

My findings provided initial support for the validity and the reliability of CSCIIS. Although it was initially expected that centrality (consisting of importance and salience) and global identification would load on separate factors, the factor analysis results revealed a slightly different structure. Importance items and global identification items loaded highly on one factor that appeared to represent global identification. All six salience items, on the other hand, loaded on a separate factor that assessed the extent to which one's group and his/her membership in it come to mind. Such results are consistent with previous studies that incorporate importance in broader constructs like self-categorization (e.g., Ellemers et al., 1999, Jackson, 2002) or consider salience as a separate dimension of group identification (e.g. Sellers et al, 1998). However, similar to my point of view, recent research by Cameron (2004) and Leach et al. (2008) shows that importance and salience are better conceived as incorporated in a single construct of centrality. Given the above contradictory results then, a further investigation of CSCIIS factor structure in different samples is required in order to clarify whether importance and salience should be treated jointly (as representing centrality) or independently from one another.

Note that this partially unexpected factor structure does not affect the main purpose of the CSCIIS, which is to distinguish between different types of ingroup identification. The final scale reflects four distinct types of identification (salience, social, communal, interdependent), along with global identification, the latter including the subjective importance of the identity. As anticipated, the salience subscale assessed the frequency with which a person thinks about his/her identity (e.g., “I often think about what it means to be in my groups.”). The items in the social identification subscale tapped the extent to which people perceive themselves as typical and interchangeable members of their group (e.g., “I am quite similar to the other people in my groups.”). The items in the communal identification subscale tapped the extent to which people perceive themselves to be in close communal relationships with other group members (e.g., “I have fairly superficial relationships with the other people in my groups.” [reverse scored]). The items in the interdependent identification subscale tapped the extent to which people perceive themselves to be in instrumental exchange relationships with other group members (e.g., “When I give something to another person in my groups, I generally expect something in return.”). Finally, the items in the global identification scale retained the function of making a general assessment of the individuals’ overall identification (e.g., “I identify with the other people in my groups.” and “My groups are important to my sense of who I am.”).

My findings provided evidence for the scale reliability. The interitem correlations and the results from the reliability tests that were performed for each of the subscales of CSCIIS were consistent with the recommendation in the literature.

The correlations between particular subscales of CSCIIS and measures of relationship orientation additionally supported the validity of the new measure.

Consistent with hypotheses, the communal identification subscale showed a significant

negative correlation with the measure of exchange orientation and a significant positive correlation with the measure of communal orientation. Conversely, the exchange orientation subscale showed a significant negative correlation with the communal orientation measure and a significant positive correlation with the exchange orientation measure. Moreover, the significant negative correlation between the communal and interdependent subscales of CSCIIS indicated that these subscales were tapping distinct constructs.

I initially proposed that communal identification would correlate positively with relational self-construal and that social identification would correlate positively with collective self-construal. Surprisingly, the RISC and CISC showed significant positive correlations with four of the five subscales of CSCIIS. However, the very high correlation between the above two self construal scales which assess supposedly distinct constructs, questions the divergent validity of the self-construal measures used in this study.

Gender Differences in Types of Identification

Based on previous studies that identified gender differences in self-construal (Baumeister & Sommer, 1997; Cross & Madson, 1997; Gabriel & Gardner, 1999), I expected that women would score higher on communal identification than men, and that men would score higher on social identification than women. However, in the present study, I found no gender differences, neither in self-construal nor in type of identification. Seeley, Gardner, Pennington, and Gabriel (2003) investigated a similar gender difference hypothesis using Prentice et al.'s (1994) common bond and common identity subscales. Consistent with the current results, Seeley et al. also did not find significant gender difference. They suggested that their null findings were because of the student sample that they employed and due to the particular experimental task that

probably made participants think about their most significant group memberships and friendships. Although I used a broader sample and different scales, the results of this study support the idea that there are no significant gender differences in types of identification. Further studies will investigate this aspect more carefully in order to corroborate the above null findings.

Cross-Cultural Differences in Types of Identification

Another set of findings in this study revealed an interesting model in relation to culture and type of identification. Based on previous research that identified cross-cultural differences in self-construal (for a meta-analytic review, see Oyserman et al. , 2002) and considering the close theoretical relationship between self-construal and ingroup identification, I initially proposed that Westerners should have lower social and higher communal and interdependent styles of ingroup identification than non-Westerners. The pattern of differences in the CSCIIS as a function of culture confirmed the expectations in regards to social and communal identification. People from Western cultures had higher scores on communal identification, and people from non-Western cultures had higher scores on social identification and salience. It should be noted here that the use of the continuous index of Westernness as a measure of culture has some valuable advantages. First, culture is conceived as a continuous rather than a categorical variable. This conceptualization of culture as a continuous construct is closer to the actual way in which different social factors and cultures integrate and merge to form one's cultural image. Second, this approach is more sensitive to cultural variations than a categorical one because it is based on a variety of different cultural characteristics of individual's cultural experience (viz., country of origin, nationality, spoken language, cultural background). However, I will investigate these cultural differences further before attempting to draw conclusions about their meaning.

Type of Group and Different Types of Ingroup Identification

Finally, a preliminary test of the type of group-type of identification link provided initial support for the expected correlations. The results of the analysis showed that people who thought more about intimacy groups had higher communal identification and people who thought more about task groups scored higher on interdependent identification. However, the correlation between interdependent identification and thinking about task groups was only marginally significant. These findings suggest that different types of groups have some distinctive properties and patterns of interaction (Lickel et al., 2000) that affect people's perception of these groups and promote different types of identification with the salient group. This type of group-type of identification relationship is likely to depend on the identity value of the group in question and the potential benefits that the particular group membership brings to the identifying individual. Knowing the basic type of the group in question then (i.e., intimacy, task, social category), could help us to predict the most preferred type of identification with that group and understand the mechanisms that guide the interaction within specific ingroups. In further studies, I provide a more detailed and extensive analysis of the hypothesis that particular types of groups will be more or less associated with particular types of ingroup identification.

Study Limitations

A few limitations of this study should be mentioned. First, the factor structure analysis of CSCIIS is based on a single sample. This points to the need for further examination of the scale's dimensionality. Second, the communal and the global identification factors in CSCIIS had only negative and positive items loaded respectively. Hence, it is possible that these two factors could be method factors

(Russell, 2002). Finally, the very low number of non-Western participants in this study (9.5%) mitigates the validity of the current cross-cultural analysis.

In subsequent studies, I aimed to continue to examine the factor structure of CSCIIS. To rule out the method factor explanation in subsequent factor analyses, I included equal numbers of positively- and negatively-worded items in the communal and global identification scales. I did this by simply rewording four of the statements in these subscales. I also employed different samples in order to equalize the ratio between Western and non-Western participants. Finally, I examined gender and cross-cultural differences in order to confirm the current findings and to clarify the distinction between the four different types of identification.

Summary

In summary, the current study provided initial evidence for the validity and reliability of CSCIIS. Although more support for the scale's psychometric properties is needed, the measure seems to have the potential to be a useful tool for assessing qualitatively different types of ingroup identification. My further studies aimed to provide more evidence in support of my distinction between four types of ingroup identification and investigate the specific role of different psychological variables (i.e., culture, gender, attachment style, group status, and group type) in predicting individual's type of identification with social groups. Study 2 primarily focused on the effect that culture and group status have on ingroup identification in intimacy group. This type of group has been found to have greater identity value than any other types of groups (Lickel et al., 2000), and it is therefore expected to provide the best test for the above relationships.

CHAPTER THREE: TYPES OF INGROUP IDENTIFICATION AS A FUNCTION OF CULTURE AND INGROUP STATUS

Overview

In this chapter, I report the results of Study 2. The main goal of the study was to investigate the effect that group status and culture have on different types of ingroup identification. In addition, the study aimed to provide further support for the distinction between centrality, social, communal, and interdependent identification. I experimentally manipulated the status of laboratory-based social groups in order to reveal whether membership in a low status group would be associated with increases in social identification and whether this effect would be moderated by culture.

Introduction

Re-examining the Factor Structure of the CSCIIS

In Study 1, I designed and tested a new scale that distinguishes between different types of ingroup identification. Factor analysis results revealed a five-factor structure. The scale consisted of 20 items in five subscales. The subscales respectively measured salience, social, communal, interdependent, and global identification. However, only positive items loaded on the global identification factor, and only negative items loaded on the communal identification factor. This pattern of results left open the possibility that both factors represented method factors (Russell, 2002) and pointed to the need to further investigation of the CSCIIS's factor structure.

In the current study, I tested the validity and the reliability of the CSCIIS further by employing a different sample of participants and using a slightly amended version of the scale. Instead of referring to all types of social groups in general, this new version of

CSCIIS measured participants' identification with a single social group. This modification was made not only because of the specific design of the study (see below) but also to determine whether the scale could be adapted to measure identification with relatively small social groups (e.g., intimacy groups).

Re-examining Cross-Cultural Differences in Identification

I also continued to examine cross-cultural variations in each of the investigated types of identification. There were relatively few non-Westerners in Study 1, and this situation jeopardised the validity of the cross-cultural comparisons in this study. In Study 2, I attempted to sample relatively equal numbers of Western and non-Western participants in order to provide a more valid test of the cultural differences in type of identification that were found in Study 1.

Examining the Effects of Ingroup Status on Different Types of Identification

There is some evidence that members of minority (low status) groups tend to enhance their positive group identification by increasing the perceived similarity between ingroup members (Simon, 1992; Simon & Brown, 1987). This increase in perceived ingroup similarity is intended to secure high self-esteem because homogeneous ingroups are seen to provide more solidarity and social support to their members than are heterogeneous ingroups.

In the literature, researchers often use the term self-typicality as the perceived similarities between the self and the ingroup (Kashima & Hardie, 2000). Research by Jetten, Spears & Manstead (1997) and Spears, Doosje, & Ellemers (1997) indicates that identity threat interacts with self-typicality in determining ingroup identification. In particular, Spears et al. (1997) manipulated identity threat by making the ingroup status lower than the outgroup status. Their results showed that the higher identity threat

condition was associated with higher self-typicality which, consequently, resulted in higher identification with the group.

As explained earlier, I operationalise social identification in terms of the perceived similarity between the self and other group members (e.g., “I am quite similar to the other people in my group.”). In contrast, none of the other types of identification that I investigate consider the perception of ingroup similarity in their conceptualization. It was proposed then, that only social identification would be affected by changes in ingroup status. In the context of different status groups, people should react to the threat of membership in a lower status group by enhancing their perceived ingroup similarity and, consequently, their social identification.

In addition, it was suggested earlier that non-Westerners would show significantly higher levels of social identification than Westerners because non-Westerners are less concerned about retaining their sense of individuality in the group. Therefore, non-Westerners are more likely to engage in a type of identification that is associated with depersonalization and perception of similarity with others in the group (i.e., social identification). The result of Study1 confirmed this prediction. In terms of the investigated relationship between group status and social identification then, it could be expected that the effects of group status on social identification may be moderated by culture with non-Westerners being more predisposed to enhance perceived ingroup similarity in response to relatively low group status.

Previous research (Branscombe et al., 1999; Jetten et al., 2001; Turner et al., 1984) has found that identification increases following low group status under certain conditions. However, these studies confounded different types of identification in their measures. For example, Jetten et al. (2001) investigated the group identification of people with body piercing, and Branscombe et al.’s (1999) study assessed the group

identification of African Americans. In such cases, identification with the group is primarily based on perceived similarities between group members and depersonalization. Hence, it could be assumed that these studies measured only participants' social identification without considering any other types of ingroup identity. In the present research, I distinguish between centrality, social, communal, and interdependent identification and consider them to be different from one another.

In addition, previous research has tended to operationalise low status groups as groups that have failed at a certain task or performed below a certain norm (e.g., Ellemers et al., 1999, Turner et al., 1984). Although failure and low status often go hand-in-hand, it is not necessary to fail at a task in order to be a low status group. Simply doing less well than other groups is sufficient to accrue relatively low status. Furthermore, it is not necessary to be a member of a low status group in order to fail at a task: High status groups may fail at tasks without doing any serious damage to their status. Theoretically, failure may have qualitatively distinct effects on identification compared to low status per se because it provides less possibility of ingroup improvement (Ouwerkerk, de Gilder, & de Vries, 2000). In the present research, I unconfounded status and task failure by making sure that the low status ingroup came second in an intergroup competition, rather than last. This research design would allow the comparison of high and low status groups independent of failure.

In summary, my ingroup status hypothesis aims to provide an important test of the distinction between different types of identification with social groups, because it only predicts an increase in social identification, not centrality, communal or interdependent identification. In particular, I expected that (1) participants in the moderately positive ingroup condition will show higher social identification than

participants in the extremely positive ingroup condition and (2) this effect would be more pronounced for non-Westerners than for Westerners.

Method

The research used a computer-based questionnaire. The questionnaire was presented online, and the encrypted raw data stored on a password protected internet server. I experimentally manipulated the status of laboratory-based social groups producing a moderately positive ingroup and an extremely positive ingroup.

Participants and Design

The study consisted of a 2 (cultural background: Western/non-Western) x 2 (ingroup status: extremely positive/moderately positive) between-subjects design. People who took part in Study 1 were requested not to participate in the present research. In order to obtain an approximately equal number of people from Western and non-Western cultural background in each experimental condition, I asked potential participants about their country of origin before making an appointment for their participation. Some potential participants were excluded from the research on the basis of this information.

During a two-month period, I recruited 122 participants aged 18 years and over. The vast majority of participants were students at the University of Newcastle, Australia. All participants received \$15 reimbursement for their time, travel expenses, and parking fees incurred in order to take part in the research. A manipulation check item showed that 10 non-Western and 2 Western participants did not remember the ranking of their group. These 12 participants were excluded from the data analysis.

The final analysis included data from the 110 participants who correctly recalled their group's ranking.¹ In this sample, there were 49 males and 61 females ranging in age from 18 to 50 years. The average age was 24.24 years ($SD = 6.24$). The number of Western and non-Western participants in each study condition is presented in Table 5.

Table 5

Distribution of Western and non-Western Participants in Experimental Conditions Based on Each of the Cultural Items and the Index of Westernness

Condition	Western/non-Western									
	<u>Country</u>		<u>Nationality</u>		<u>Language</u>		<u>Background*</u>		<u>Westernness</u>	
	W	NW	W	NW	W	NW	W	NW	High	Low
Extremely Positive	33	19	34	18	39	13	28	8	33	18
Moderately Positive	32	24	31	25	41	15	24	16	32	24

Note. W = participants coded as Western; NW = participants coded as non-Western.

* N = 76 because 32 participants pointed having mixed Western/non-Western or "other" cultural background.

Procedure

The study was titled "Group Identification" and was conducted using a single online questionnaire. Participants were told that the research was investigating how people identify with social groups. The questionnaire was presented on a computer that was located in a quiet room at the University of Newcastle. Participants were required to attend one research session during which they (1) completed a group generation task,

¹ Two Israeli participants were excluded from the cross-cultural analyses. It was not clear whether Israeli (Israel) should be coded as Western or non-Western (see Footnote 4, Oyserman et al., 2002, p. 13)

(2) answered several group profile questions, and then (3) responded to a series of dependent measures, including the CSCIIS. Each research session took approximately 35 minutes to complete.

In the group generation task, the researcher asked participants to generate a group of five people that included themselves and four other family members and/or friends. This group was called the RED group. Then, participants responded to four group profile questions that asked how many people in their group, including themselves, possessed certain characteristics (“How many members of your group are male?”, “How many members of your group have dark hair?”, “How many members of your group wear glasses?”, “How many members of your group are religious?”). For each question, participants selected one number from 0 to 5 from a dropdown menu.

In order to experimentally manipulate ingroup status, participants were informed that the computer would compare their responses with the responses obtained from four other people who had recently taken part in the same study and responded to the same questions. The groups of the four other people were presented as the BLUE, GREEN, ORANGE, and YELLOW groups. The computer then provided a ranking of the five groups. This ranking was supposedly based on each group’s match to a winning group profile that had been randomly generated by the researcher before the study commenced. Participants read that the group that was ranked in first place was the group that most closely matched the winning group profile, the group that was ranked in second place was the next closest matching group, and so on. A percentage score appeared next to each group in the list to indicate how closely each group matched the winning group profile. A highlighted message followed the ranking, advising participants to spend few moments memorizing their group position because this information would need to be recalled later on.

In fact, there was no winning group profile, and the four other participants and their groups that were supposedly involved in the competition were fictitious. This bogus situation allowed the computer to randomly assign participants' groups to either first place (extremely positive ingroup status) or second place (moderately positive ingroup status) without arousing the suspicions of the participants. Participants were fully debriefed about this deception at the end of the study and offered the opportunity to withdraw their data if they wished. None of the participants took this opportunity.

Finally, participants were asked to complete a questionnaire that consisted of the revised 20-item CSCIIS. In contrast to Study 1, in which the general instructions for the scale asked participants to consider all types of groups, participants in this study were instructed to think only about the group that they generated in the group building task. This modification to the CSCIIS' instructions not only made the measure sensitive to the experimental manipulation of ingroup status but also provided the first test of a specific version of CSCIIS that would allow researchers to measure types of identification associated with specific groups.

Participants then provided their age and gender and responded to the measure of culture that I used in Study 1. This measure of culture incorporated four items which tapped both objective and subjective information at the level of specific countries, cultural backgrounds and languages. The items allowed the investigation of cross-national, intranational, and cross-linguistic cultural variations. They also provided combined information about broader Western and non-Western cultural variations.

I also included three manipulation check items and group feeling items (e.g., "What position was your group in the ranking?", "How good do you feel about your group?") This gave me the opportunity to investigate different aspects of the ingroup status manipulation effect.

Results

Factor Analysis

After reverse-scoring negatively-worded items, I conducted a factor analysis following the approach taken in Study 1. A principal axis factor analysis extracted six factors with eigenvalues larger than one. However, the scree plot test (Cattell, 1966) revealed that there was a break after the fourth factor (see Figure 2).

Scree Plot

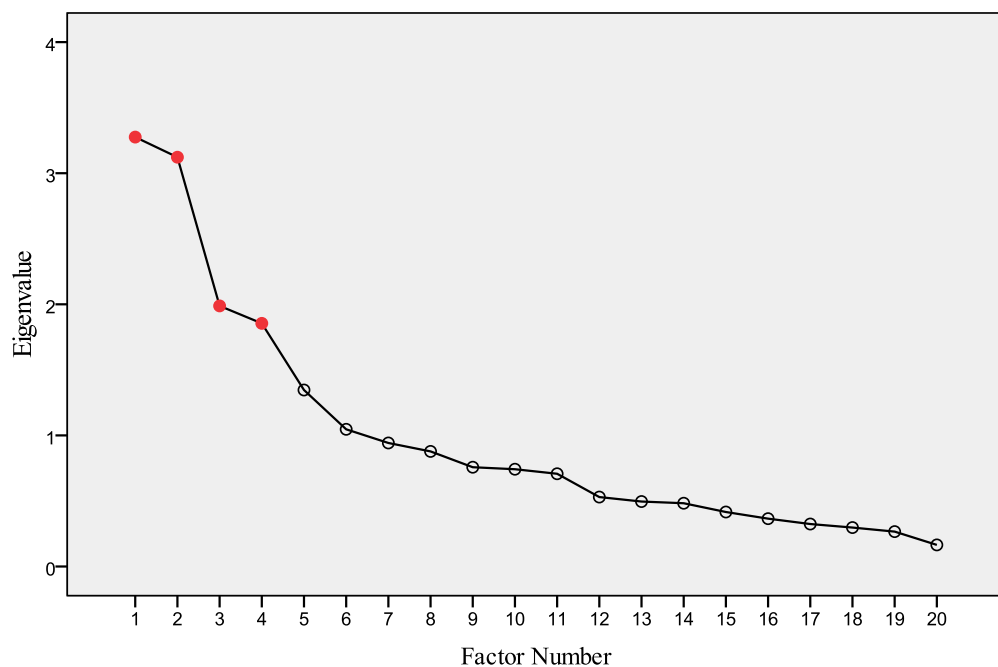


Figure 2. Eigenvalues as a function of factors extracted from the CSCIIS

Consistent with the scree plot, the results of a parallel analysis (Horn, 1965; Watkins, 2000) identified only four factors with eigenvalues bigger than the criterion eigenvalues for a randomly generated sample with the same matrix design (Table 6). Hence, I decided that a four-factor structure represented the optimal solution for the CSCIIS.

Based on these analyses and a priori theory, I extracted four factors using a promax rotation and item loadings $\geq .30$ as cut-of criteria. These four factors accounted for 51.20% of the total variance.

Table 6

Comparison Between Criterion Eigenvalues From Parallel Analysis and the Eigenvalues From the Current Principal Axis Factoring

Factor Number	Criterion Eigenvalue from Parallel Analysis	Actual Eigenvalue	Outcome
1	1.86	3.28	Retain
2	1.69	3.12	Retain
3	1.56	1.99	Retain
4	1.45	1.86	Retain
5	1.36	1.35	Drop
6	1.27	1.05	Drop

The first factor accounted for 16.38% of the variance and had an eigenvalue of 3.28. The four salience items and the two importance items showed the largest loadings on this factor, with factor loadings ranging from .81 to .37. Following Cameron (2004) and Leach et al. (2008), I labelled this factor centrality.

The second factor accounted for 15.61% of the variance and had an eigenvalue of 3.12. The four social identification items showed the largest loadings on this factor, ranging from .85 to .55. I labelled this factor social identification.

The third factor accounted for 9.94% of the variance and had an eigenvalue of 1.99. Three communal items and one global identification item loaded on this factor, above the .30 cut-off criteria. Factor loadings ranged from .69 to .37. The second global identification item also loaded on this factor, with a loading value of .29. Unexpectedly, one of the interdependent items ("I would sacrifice my self-interests for the benefits of

the other members in my groups”) also showed its strongest, but negative, loading of -.41 on this factor. I labelled this factor communal identification.

I should note here that the empirical evidence from both studies suggested that global identification may not represent a distinct construct. In Study 1, the global identification factor had all the characteristics of a method factor (Russell, 2002) that may have reflected the style of responding to positively-worded items. In the present study, global identification did not load on a separate factor. Therefore, the two global identification items were excluded from further analyses. In addition, I decided that the interdependent item that loaded on the communal factor should also be removed from the subsequent analyses in this study. However, I tested all of these items in further studies before making a final decision about their exclusion from CSCIIS.

The fourth factor accounted for 9.27% of the total variance and had an eigenvalue of 1.86. Three interdependent identification items showed the largest positive loadings on this factor, ranging from .71 to .61. One communal item (“I don’t care about the people in my group”) also had its highest, but negative, loading value of -.43 on the factor. I labelled this factor interdependent identification. Consistent with the approach taken for the previous factor, the communal item loading negatively on the interdependent factor was excluded from the subsequent analyses.

Table 7 shows the factor loading of the items on each of the four identified factors of CSCIIS.

Reliability and Interitem Correlations

Cronbach’s alphas for all of the CSCIIS subscales were in the range recommended by Clark and Watson (1992) for good or adequate reliability. For the centrality subscale, $\alpha = .76$; for the social identification subscale, $\alpha = .76$; for the

communal identification subscale, $\alpha = .57$; and for the interdependent identification subscale, $\alpha = .71$. The CSCIIS had an overall α of .64.

Table 7

Items and Factor Loadings of the 20-Item Version of CSCIIS

Item	Factor			
	1	2	3	4
<i>Centrality</i>				
I often think about the fact that I am in my group.	.81			
My group is important to my sense of who I am.	.72			
I often think about what it means to be in my groups.	.71			
I don't think very much about my groups.*	.53			
The fact that I am member of my groups rarely enters my mind.*	.47			
My group is unimportant to my self-image.*	.37			
<i>Social identification</i>				
I am quite similar to the other people in my group.		.85		
I am not the same as the other people in my group.*		.69		
There is very little difference between myself and other members of my group.		.60		
The people in my group are quite different from me.*		.55		
<i>Communal identification</i>				
I identify with the other people in my group. (global identification item)			.69	
I have many close friends in my group.			.66	
I empathize with the other people in my group.			.60	
I don't care about the people in my group.*				-.43
I have fairly superficial relationships with the other people in my groups.*			.37	
I do not identify with my group.* (global identification item)			.29	
<i>Interdependent identification</i>				
I keep track of benefits I have given to other members of my group.				.71
I do not expect anything in return for favours I have done for the other people in my groups.*				.61
When I give something to another person in my groups, I generally expect something in return.				.61
I would sacrifice my self-interest for the benefit of the other people in my groups.*			-.41	

Note. Items with asterisk are reverse scored. The cut-off criteria used for including factor loadings in the table is $> .30$. The factor loading in bold represents the largest loading for the particular item in question.

As an additional indicator of internal consistency, the average interitem correlations for all subscales were found to be more than satisfactory. The mean values were: .35 for the centrality subscale, .45 for the social identification subscale, .32 for the communal subscale, and .45 for the interdependent identification subscale.

Convergent Validity

Consistent with the results of Study 1, the communal identification subscale showed a significant negative correlation with the interdependent identification subscale ($r = -.21, p = .03$). No other significant correlations between CSCIIS subscales were found.

Variations in CSCIIS as a Function of Culture and Ingroup Status

In a preliminary analysis of the relationship between culture and type of identification, I used the combined index of Westernness that was created in Study 1. As in Study 1, I summed scores from the nationality, country, language, and cultural background responses to form a continuous index of Westernness. Scores on this index ranged from 0 to 4, with a score of 4 indicating that the participant was coded as Western on all four criteria and a score of 0 indicating that the participant was coded as non-Western on all four criteria. I performed a series of bivariate correlations using this combined index of Westernness and the subscales of the CSCIIS. Consistent with Study 1, Westernness showed a significant positive correlation with the communal identification subscale ($r = .41, p < .01$) and a significantly negative correlation with the centrality subscale ($r = -.43, p < .01$).

To examine the effect of ingroup status and culture on each of the CSCIIS subscales, I performed a series of 2 (ingroup status: extremely positive/moderately positive) x 2 (culture: Western/non-Western) between-subject ANOVAs on each of the CSCIIS' subscales. Ingroup status was represented by the experimental conditions

(ingroup ranked first, ingroup ranked second). Culture was represented by each of the four culture items (nationality, country, language, and cultural background).

Results Based on Nationality

When culture was based on nationality, there was a significant main effect of ingroup status on social identification, $F(1, 104) = 6.84, p = .01, \eta_p^2 = .06$. Consistent with predictions, participants in the moderately positive status condition had significantly higher social identification ($M = 3.13$) than participants in the extremely positive status condition ($M = 2.77$). However, this main effect was qualified by a two-way interaction between status condition and nationality, $F(1, 104) = 4.15, p = .04, \eta_p^2 = .04$. Analysis of simple main effects revealed that non-Western participants in the moderately positive status condition had significantly higher social identification ($M = 3.32$) than non-Western participants in the extremely positive status condition ($M = 2.57$), $t(41) = -2.99, p < .01$. In contrast, there was no significant difference between Western participants' social identification in the moderately positive condition ($M = 2.98$) and in the extremely positive status condition ($M = 2.88$), $t(63) = -.46, p = .65$. There was also a significant main effect of nationality on communal identification, $F(1, 104) = 12.22, p < .01, \eta_p^2 = .11$. Consistent with Study 1, Westerners showed significantly higher communal identification ($M = 4.25$) than non-Westerners ($M = 3.78$). Finally, there was a significant main effect of nationality on centrality, $F(1, 104) = 27.03, p < .01, \eta_p^2 = .21$. Non-Westerners scored significantly higher on centrality ($M = 3.91$) than Westerners ($M = 3.24$). No other main effects were significant ($ps > .19$).

Results Based on Country of Origin

When culture was based on country of origin, the pattern of results was similar to that reported above. There was a significant main effect of ingroup status on social identification, $F(1, 104) = 6.55, p = .01, \eta_p^2 = .06$. Again, participants in the moderately

positive status condition scored higher on social identification ($M = 3.13$) than participants in the extremely positive status condition ($M = 2.77$). Unlike the results based on nationality, this main effect was qualified only by a marginally significant two-way interaction between status condition and country of origin, $F(1, 104) = 3.28$, $p = .07$, $\eta_p^2 = .03$. However, as ter Doest et al. (2002) pointed “the ANOVA interaction term may provide an overlay conservative test in view of the large associated main effects.” (p. 206). Considering this suggestion, previous findings, and the theoretical relevance of the expected simple main effects, it was decided to investigate the above marginally significant interaction further. Analysis of simple main effects revealed that non-Western participants in the moderately positive status condition had significantly higher social identification ($M = 3.32$) than non-Western participants in the extremely positive status condition ($M = 2.62$), $t(41) = -2.78$, $p < .01$. In contrast, there was no significant difference between Western participants’ social identification in the moderately positive condition ($M = 2.98$) and in the extremely positive status condition ($M = 2.86$), $t(63) = -.60$, $p = .55$. There was also a significant main effect of country of origin on communal identification, $F(1, 104) = 15.27$, $p < .01$, $\eta_p^2 = .13$. Westerners showed significantly higher communal identification ($M = 4.27$) than non-Westerners ($M = 3.74$). Finally, there was a significant main effect of country of origin on centrality, $F(1, 104) = 27.08$, $p < .01$, $\eta_p^2 = .21$. Non-Westerners scored significantly higher on centrality ($M = 3.91$) than Westerners ($M = 3.24$). No other effects were significant ($ps > .17$).

Results Based on Cultural Background

When culture was based on cultural background, the results were partly different to those above. Consistent with the previous results, there was a significant main effect of ingroup status on social identification, $F(1, 72) = 5.93$, $p = .02$, $\eta_p^2 = .08$. Again,

participants in the moderately positive status condition scored higher on social identification ($M = 3.11$) than participants in the extremely positive status condition ($M = 2.74$). As before, this main effect was qualified by a two-way interaction between status condition and cultural background, $F(1, 72) = 4.38, p = .04, \eta_p^2 = .06$. Analysis of simple main effects revealed that non-Western participants in the moderately positive status condition had significantly higher social identification ($M = 3.42$) than non-Western participants in the extremely positive status condition ($M = 2.44$), $t(22) = -2.55, p = .02$. There was no significant difference between Western participants' social identification in the moderately positive condition ($M = 2.90$) and in the extremely positive status condition ($M = 2.82$), $t(50) = -.33, p = .75$. There was also a significant main effect of cultural background on communal identification, $F(1, 72) = 19.37, p < .01, \eta_p^2 = .21$. Westerners showed significantly higher communal identification ($M = 4.34$) than non-Westerners ($M = 3.71$). Unlike the results based on nationality and country, there was also a significant main effect of group status condition on communal identification, $F(1, 72) = 4.44, p = .04, \eta_p^2 = .06$. Participants in the moderately positive status condition showed higher communal identification ($M = 4.23$) than participants in the extremely positive status condition ($M = 4.05$). However, these two main effects were not qualified by a significant interaction between status condition and cultural background ($p = .56$). Unlike the results based on nationality and country again, there was also a significant main effect of group status condition on interdependent identification, $F(1, 72) = 5.50, p = .02, \eta_p^2 < .07$. Participants in the extremely positive status condition showed higher interdependent identification ($M = 2.18$) than participants in the moderately positive status condition ($M = 1.85$). This main effect was not qualified by a significant interaction between status condition and cultural background ($p = .13$). Finally, similar to the results based on nationality and country of

origin there was a significant main effect of cultural background on centrality, $F(1, 72) = 15.85, p < .01, \eta_p^2 = .18$. Non-Westerners scored significantly higher on centrality ($M = 3.96$) than Westerners ($M = 3.23$). However, this last result should be treated with caution because the homogeneity of variances was violated ($p = .03$) due to the disproportionately low cell size for the extremely positive group status condition/non-Western cell ($n = 8$). No other effects were significant ($ps > .13$).

Results Based on Language

When culture was based on language, the results were relatively similar to those based on nationality and country of origin. As before, there was a significant main effect of study condition on social identification, $F(1, 104) = 6.70, p = .01, \eta_p^2 = .06$. Participants in the moderately positive status condition scored higher on social identification ($M = 3.13$) than participants in the extremely positive status condition ($M = 2.77$). Unlike previous results, however, this main effect was not qualified by a significant interaction between status condition and language ($p = .20$). There was also a significant main effect of language on communal identification, $F(1, 104) = 25.35, p < .01, \eta_p^2 = .20$. Westerners scored significantly higher on communal identification ($M = 4.25$) than non-Westerners ($M = 3.52$). Finally, there were significant main effects of language on centrality, $F(1, 104) = 10.17, p < .01, \eta_p^2 = .09$. Non-Westerners scored significantly higher on centrality ($M = 3.88$) than Westerners ($M = 3.38$). Again, this last result should be treated with caution because the homogeneity of variance assumption was violated ($p = .03$). No other effects were significant ($ps > .18$).

Results Based on the Combined Index of Westernness

Although the previous analyses revealed a fairly consistent pattern of results using different measures of culture, there were some discrepancies. In order to obtain a more reliable analysis of the effects of culture, I used the combined index of Westernness

as a categorical variable. Specifically, I classified participants with scores of 3 and 4 on Westernness as Westerners and participants with scores of 0 and 1 on Westernness as non-Westerners. Participants with scores of 2 on Westernness were excluded from the analysis as being neither Western nor non-Western.

As before, I performed a series of 2 (Westernness: Western/non-Western) x 2 (ingroup status: extremely positive/moderately positive) between-subjects ANOVAs on each of the subscales of the CSCIIS using the index of Westernness as a categorical independent variable representing culture. The results replicated the results based on nationality and country of origin. There was a significant main effect of condition on social identification, $F(1, 103) = 7.23, p < .01, \eta_p^2 = .07$. Participants in the moderately positive status condition scored higher on social identification ($M = 3.13$) than participants in the extremely positive status condition ($M = 2.76$). This main effect was qualified by a two-way interaction between status condition and Westernness, $F(1, 103) = 3.79, p = .05, \eta_p^2 = .04$. Analysis of simple main effects revealed that non-Western participants in the moderately positive status condition had significantly higher social identification ($M = 3.32$) than non-Western participants in the extremely positive status condition ($M = 2.57$), $t(40) = -2.94, p < .01$. In contrast, there was no significant difference between Western participants' social identification in the moderately positive condition ($M = 2.98$) and the extremely positive status condition ($M = 2.86$), $t(63) = -.60, p = .55$. There was also a significant main effect of Westernness on communal identification, $F(1, 103) = 14.70, p < .01, \eta_p^2 = .13$. Westerners had significantly higher communal identification ($M = 4.27$) than non-Westerners ($M = 3.75$). Finally, there was a significant main effect of Westernness on centrality, $F(1, 103) = 26.67, p < .01, \eta_p^2 = .21$. Non-Western participants scored significantly higher on centrality ($M = 3.91$) than Western participants ($M = 3.24$). No other effects were significant ($ps > .22$).

Discussion

Factor Structure of the CSCIIS

Consistent with expectations and Study 1, items tapping social, communal and interdependent identification loaded on three separate factors. A fourth factor included the four salience items and the two importance items that were previously associated with global identification. Notably, none of the extracted four components consisted of only positively or only negatively worded items. Hence, these results mitigated against the possibility that some of the CSCIIS factors here represented method factors (Russell, 2002), as proposed in Study 1.

In the previous study, I found that the CSCIIS consisted of five factors: social identification, communal identification, interdependent identification, salience, and global identification. In contrast, in the present study, the CSCIIS consisted of four factors: centrality (salience/importance), social identification, communal identification, and interdependent identification. These later results were much clearer and corresponded more closely to my theoretical view on the matter. One potential reason for the discrepancies in the factor structure of the CSCIIS between the two studies could be because in Study 1 the group focus was not clear. In contrast, in Study 2 participants thought about only one group (i.e., intimacy group).

The fact that salience and importance items both loaded on a same factor made this factor identical to Cameron's (2004) and Leach et al.'s (2008) ideas of centrality and was fully consistent with my concept about this construct. Global identification, on the other hand, did not load on a separate factor. Instead, the two global identification items loaded on the communal identification factor, and the two importance items loaded on one factor with salience. Hence, the global identification factor that I found in Study 1 was not replicated in the present study. Given that the global identification

factor showed some characteristics of a method factor in Study 1 (Russell, 2002), it seemed prudent to reconsider the inclusion of global identification as a subscale in the CSCIIS. Certainly, the lack of empirical evidence for a global identification factor lends credibility to the assumption that ingroup identification is best conceived as a multidimensional construct (Asmore et al., 2004; Cameron, 2004; Jackson & Smith, 1999; Leach et al., 2008) rather than unidimensional construct (Brown et al., 1986; Kelly, 1988). The results of the current factor analyses provided a clearer and more theoretically sound four-factor structure for the CSCIIS that supports the proposed distinction between centrality, social, communal, and interdependent identification.

Cross-Cultural Variations in Type of Identification

The pattern of cross-cultural results that emerged in Study 2 was relatively similar to that in Study 1. The results of Study 1 indicated that Western participants scored significantly higher on communal identification than did non-Western participants, and non-Western participants scored significantly higher on social identification and salience than did Western participants. In Study 2, Western participants once again showed significantly higher levels of communal identification than non-Western participants, and non-Western participants scored significantly higher on centrality (integrating salience and importance) than Western participants.

In addition, non-Western participants in Study 2 scored relatively higher on social identification than did Western participants. There was also a negative correlation between the combined index of Westernness and social identification. However, these latter two results involving social identification were not significant ($ps > .60$).

Following Oyserman et al. (2002), I initially predicted that Westerners would show higher communal and interdependent identification than non-Westerners, and that non-Westerners would show higher social identification and centrality than Westerners

because Westerners are more concerned with retaining a sense of individuality in the group than are non-Westerners. Surprisingly, the supportive evidence for cross-cultural variations in social identification found in Study 1, were not replicated in Study 2. However, consistent with expectations, in both studies Western participants were significantly higher on communal identification than non-Western participants. In addition, in both studies, non-Western participants showed higher levels of centrality (or salience in Study 1).

In summary, the results of the cross-cultural analyses showed that Westerners reported having closer and more meaningful relationships with their groups (i.e., greater communal identification), but they considered these groups to be less important to their self-definition and thought less about them than did non-Westerners (i.e., less centrality).

The Effect of Ingroup Status on Different Types of Identification

Based on previous research (Simon & Brown, 1987; Simon, 1992; Simon & Hamilton, 1994, Turner et al., 1984), I proposed that people would react to low ingroup status by increasing their social identification with the group. Therefore, in the analyses, I was particularly interested in the effect of ingroup status on each of the subscales of CSCIS. Consistent with predictions, the results showed a significant main effect of study condition (ingroup status) on social identification. Participants in the moderately positive status condition scored significantly higher on social identification than participants in the extremely positive status condition. As expected, the main effect of ingroup status tended to be nonsignificant for centrality, communal and interdependent identification.

There was a slight discrepancy in the results based on one of the operationalisations of culture: When culture was based on cultural background,

participants in the extremely positive status condition showed significantly higher interdependent identification than participants in the moderately positive status condition. In addition, participants in the extremely positive status condition showed significantly lower communal identification than participants in the moderately positive status condition. However, these main effects were not significant when culture was based on nationality, country of origin, language, or the combined index of Westernness. The above difference may be explained in terms of the coding of the data obtained from the cultural background item. Based on this item, 33 participants indicated having “mixed” (Western/non-Western) or “other” cultural background. Because these responses were coded as missing, this is likely to have affected the reliability of the results based on this measure of culture.

Further analyses of the effect of ingroup status on social identification revealed that this effect was moderated by culture. Non-Western participants in the moderately positive status condition had significantly higher levels of social identification than non-Western participants in the extremely positive status condition. In contrast, there was no significant difference in Western participants’ social identification in both status conditions. It is possible to explain this result in terms of cross-cultural differences in reactions to low ingroup status. Previous research (Heine, Lehman, Markus, & Katayama, 1999; Heine et al., 2001; Heine & Renshaw, 2002) suggests that people from Western cultures are more prone to individual self-enhancement because of its perceived beneficiality and functionality in society, whereas people from non-Western (collectivist) cultures “focus more on maintaining positive evaluations of their groups” (Heine et al., 1999, p. 783) and are “more likely to view their self and their performance as potentially improvable” (Heine et al., 2001, p. 606). Consistent with this interpretation, it is possible that non-Westerners in the present study were more prone to

enhance their social identification with their group because they were more concerned about facilitating their group's performance.

One important point should be considered in relation to all of the culture-related results in this study. While the percentage of non-Western participants in Study 1 was quite low, Study 2 had a relatively equal numbers of Western and non-Western participants. Hence, the cross-cultural results of Study 2 have greater validity than those of Study 1.

Study Limitations

Three limitations of the present research should be considered. First, although entirely consistent with my initial expectations, the four-factor configuration of CSCIIIS that was revealed in this study does not fully match Study 1's findings. Further research using different samples is required in order to clarify the factor structure of the CSCIIIS.

Second, consistent with predictions, non-Westerners had higher social identification than Westerners in Study 1. However, in Study 2, there were no significant differences in social identification between Westerners and non-Westerners, although the pattern of means was in the predicted direction. Hence, more evidence from subsequent studies is needed before confirming or rejecting this hypothesis.

Finally, the group generating task in the ingroup status manipulation did not involve different types of group. Instead, participants were asked to think about a group that consisted of close friends and family. In other words, participants were asked to think about an intimacy group in the present research (e.g. family, group of close friends). It is possible that the use of an intimacy group as the sole target group in the present study may have affected participants' responses on the CSCIIIS by enhancing communal identification at the expense of other types of identity. To examine this possibility, I compared the mean scores for each of the CSCIIIS

identification subscales from the sample of participants from Studies 1 and 2. As expected, participants in the present study had higher communal identification ($M = 4.06$, $SD = .71$) than those in Study 1 ($M = 3.78$, $SD = .69$). Looking at the other subscales, participants in Study 2 also scored higher on social identification ($M = 2.96$, $SD = .83$) than participants in Study 1 ($M = 2.84$, $SD = .81$). In contrast, participants in Study 2 scored lower on interdependent identification ($M = 2.17$, $SD = .76$) than did participants in Study 1 ($M = 2.47$, $SD = .64$). These findings suggested that different types of social groups may enhance different types of ingroup identification. However, the lack of variance in the group type in Study 2 limits the possibility for clearer conclusions on this matter at this point of the investigation. I specifically investigated the relationship between types of social groups and types of ingroup identification in Chapters 5 and 6 of this work.

Summary

Overall, the results of this study confirmed Study 1's findings of good validity and reliability of the CSCIIS. The data supported the distinction between the investigated different types of ingroup identification. In both Studies 1 and 2, social, communal, and interdependent identification emerged as distinct factors of CSCIIS, providing evidence for the robustness of my model across different participant populations. In addition, in the current study centrality was shown to incorporate salience and the importance of the group for one's self-definition, which overlaps with my initial conceptualization of this construct.

The pattern of cross-cultural variations in Study 2 supported Study 1's findings that Westerners have higher communal identification and lower centrality (salience in Study 1) than non-Westerners. Additional evidence of the divergent validity of the CSCIIS scales demonstrated that increases in identification in response to low ingroup

status only occurred in relation to social identification and not in relation to centrality, communal or interdependent identification. As predicted, this latter effect was moderated by culture. Western participants' social identification did not differ significantly between the moderately positive and the extremely positive status conditions. In contrast, non-Western participants increased their social identification with their group in the lower status condition when the need for improvement or better performance was made salient.

The above results suggest that there are different types of ingroup identification which could be clearly distinguished from one another and that factors such as culture and group status affect some of these types of identification in a rather specific way. Study 3 of this work takes a more general approach towards the group type that participants think about and will attempt to provide further evidence in support of the previously discussed findings related to culture. Like culture, attachment style is another important variable that has a significant and lasting influence on people's social behaviour and therefore could also be expected to have an impact on the way in which individuals identify with their groups. Following such assumption, the primary aim of Study 3 will be to examine the role of attachment style in preferring different types of identification.

CHAPTER FOUR: ADULT ATTACHMENT STYLES AS PREDICTORS OF DIFFERENT TYPES OF INGROUP IDENTIFICATION

Overview

In this chapter, I report the results of Study 3. The primary goal of the study was to explore the relation between different attachment styles and different types of ingroup identification. In addition, I aimed to provide further evidence in support of the convergent and divergent validity of the CSCIIS.

Introduction

Relationships Attachment Styles and Types of Identification

In their everyday life, people experience many types of relationships that range from specific relationships with single individuals to more broader relationships with different groups and collectives. However, research in this area has rarely attempted to integrate the purely interpersonal level of affiliation such as attachment style with the group level of affiliation associated with the identification process. Relatively few studies have investigated links between adult attachment theory and group identification. Smith, Murphy and Coats (1999) proposed that *attachment anxiety* and *avoidance* are two underlying dimensions of an individual's attachment to a group. According to the authors, relationship attachment and attachment to the group are conceptually and empirically different constructs. Although these two constructs are often correlated with one another, relationship attachment has been suggested to have a stronger impact on self-esteem and, consequently, a stronger impact on an individual's identification with groups. More recently, Crisp et al. (2009) found that the strength of individuals' identification with the group after an identity threat depended on

individuals' level of attachment anxiety. In particular, higher attachment anxiety was shown to account for lower group identification while lower attachment anxiety accounted for higher group identification.

However, none of the previous research considers the conceptual differences between centrality, social, communal, and interdependent identification. Unlike Crisp et al. (2009) and Smith et al., (1999), my aim was not to investigate the extent to which the strength of group identification in general is affected by differences in individuals' attachment anxiety and avoidance, but rather to reveal the way in which individuals with different attachment styles enhance different types of identification with their groups.

As explained in Chapter 1 of this work, different attachment styles are characterized by differences in individuals' perceptions toward interpersonal relationships and presuppose different mechanisms of social behavior and interpersonal interaction. Different types of ingroup identification, on the other hand, are defined by different types of relationships between group members and are associated with differences in individuals' perception towards the group or its members. Drawing on the idea that some types of ingroup identification are based on interpersonal attachment to the group's members, while others are associated with attachment to the group as a whole (Prentice et al., 1994), I expected to detect a significant co-variation between ingroup identification and specific adult relationship attachment styles. In particular, I investigated whether prototypic relationship attachment styles predicted different types of ingroup identification.

There is already evidence that individuals with avoidant attachment style score lower on a measure of relational self-construal modified to relate to friendship than do nonavoidant individuals (see Footnote 1, Gabriel et al., 2005, p. 1571). Given the

theoretical parallel between relational self-construal and communal identification, I hypothesize that people with avoidant attachment style should report less communal identification than people with secure attachment style. Mikulincer, Orbach, and Iavnieli (1998) found that, relative to individuals with a secure attachment style, avoidant individuals reduced their perceived self-to-ingroup similarity whereas anxious–ambivalent (preoccupied) individuals increased it. From the investigated four types of ingroup identification, only social identification is characterised by the perception of similarity with other group members. Hence, I predicted that, relative to secure individuals, avoidant individuals should have lower social identification and anxious–ambivalent (preoccupied) individuals should have higher social identification.

Relative to the above rationale and experimental hypotheses, one final point should be clarified. Different researchers have used categorical, continuous or both methods to measure attachment style in their studies (Fraley & Waller, 1998; Gabriel et al., 2005; Mikulincer et al., 1998). The use of any of the two measurement methods usually depends on the specific topic of research and the phenomena that are being investigated. Given that my research focused on the general, prototypic types of adult attachment style and their basic relationships with particular types of ingroup identification, I decided that measuring attachment style as a categorical variable would be the most appropriate approach, because it would correspond better with the design and the purpose of the current study.

Investigating the Factor Structure of CSCIIS

In Studies 1 and 2, I used a scale that measures centrality, social, communal, and interdependent identification. The scale was constructed using a broad range of previously validated measures that assessed different components of ingroup identification. However, the result concerning the factor structure of the measure in each

of the two studies differed in the number and the content of the factors extracted. In Study 1, the CSCIIS was found to have five factors, while in Study 2 the results showed a relatively clearer four-factor structure. In the current study, I continued analyzing CSCIIS's dimensionality in order to see whether or not one of the two previously found configurations would be replicated in a new sample of participants.

Gender and Cross-Cultural Variations in Types of Identification

The results of Studies 1 and 2 revealed cross-cultural differences in centrality, communal and social identification. However, there were some discrepancies in the findings. In this study, I continued analyzing the variations in participants' ingroup identification as a function of culture in order to be able to draw a firmer conclusion about this relationship. I also conducted a further test of gender differences in identification in order to confirm the null findings from the previous two studies.

The Type of Group –Type of Identification Relationship

I predicted earlier in this work that the salience of particular types of groups would enhance particular types of ingroup identification. I expected that people would show higher levels of social identification when thinking about social category groups, higher levels of communal identification when thinking about intimacy groups, and higher levels of interdependent identification when thinking about task groups. The results of Study 1 confirmed predictions for communal identification. The current study continued to seek further preliminary evidence for the expected relationships between types of groups and types of identification.

CSCIIS's Construct Validity

In the present study, I continued to assess the correlations of the CSCIIS and its subscales with previously validated measures. In particular, I included five measures of different factors of identification (e.g. group membership, group self-esteem,

commitment to the group, ingroup affect, and ingroup ties) and a social desirability bias measure. As evidence of convergent validity, I expected that the subscales of CSCIIS would show small to moderate correlations with the established measures of identification constructs. As evidence of divergent validity, I expected that the subscales of CSCIIS would not correlate significantly with the social desirability bias measure.

Method

Participants

During a four-month period, I collected data from 166 participants from the global internet community. However, 44 participants did not finish the questionnaire. Following previously set rules for such cases, these participants were considered as having withdrawn from the study and their data was deleted. Hence, in the analysis, I used only the data from 122 participants who fully completed the survey.

Participants were 35 men and 87 women ranging in age from 18 to 52 years. The average age was 26.75 years ($SD = 8.54$). Based on country of origin, 98 (80.3 %) participants were classified as Western and 24 (19.7 %) as non-Western. All participants had the opportunity to enter a prize draw for one of three electronic gift certificates worth US\$100 each, redeemable from an online store. The information statement asked people who took part in Studies 1 and 2 not to participate in the present research.

Procedure and Measures

The survey was presented on the internet using computer based software. The internet link for the study was placed in a number of websites that list online psychological studies (e.g., www.socialpsychology.org; <http://genpsylab-wexlist.unizh.ch/>; www.psychresearch.org.uk). In addition, recruitment posters with the link to the survey were posted at various locations at the Callaghan campus of the University of Newcastle, Australia. People willing to participate were able to complete

the questionnaire at anytime from any computer with internet access. All participants completed a single 93-item questionnaire consisting of the CSCIIS together with previously established measures of relationship attachment style, social dominance orientation, and ingroup identification. I also included the four measures of culture that were used in Studies 1 and 2. As in Study 1, an additional single item asked participants to type in a rank order the first three groups that they were thinking about when they were responding to the CSCIIS items.

Using a broad range of measures is a common step for testing convergent and divergent validity of scales (Clark & Watson, 1995). However, it would have been impractical to include all of the necessary measures in a single study because this would have made the questionnaire very long, and participants' responses would have suffered from fatigue effects. I overcame this problem by replacing the set of established measures used to assess the CSCIIS' construct validity in Study 1 with another set for the current study.

The Balanced Inventory of Desirable Responding (BIDR)

Social desirability bias scales are commonly used by survey researchers to validate other scales (Leite & Barett, 2005). One of the most widely used measures of social desirability is the Balanced Inventory of Desirable Responding (BIDR), created by Paulhus (1984). In order to show divergent validity, I expected to establish that scores on each of the CSCIIS subscales are not related to social desirability concerns.

The BIDR consists of 40 items; 20 designed to assess self-deceptive enhancement and the remaining 20 measuring impression management. Respondents indicate their agreement using a 7-point Likert scale from *not true* to *very true*. The items are scored dichotomously by assigning a value of 1 to extreme responses (either 6 or 7) and 0 to the remaining responses (1 – 5). Example items are “I never regret my

decisions” and “I never cover up my mistakes”. According to Paulhus (1998) the BIDR has good internal consistency (α s ranged from .81 to .86) and good test-retest reliability ($r = .63$; 5 weeks interval). Evidence of convergent validity includes the BIDR’s positive correlations with the Marlowe-Crowne scale ($r = .71$) and the Multidimensional Social Desirability Inventory ($r = .80$; Jacobson, Kellogg, Cause, & Slavin, 1977).

Measures of Identification Components

In order to further test the convergent and divergent validity of the CSCIIS, I included selected subscales from Luhtanen and Crocker’s (1992) Collective Self-Esteem Scale (Membership subscale), Ellemers et al.’s (1999) Social Identification Scale (Group Self-Esteem and Commitment to the Group subscales), and Cameron’s (2004) Three-Factor Social Identification Scale (Ingroup Ties and Ingroup Affect subscales). Example items from these scales include “I am a worthy member of the social group I belong to” (membership), “I feel good about my groups” (group-self-esteem), “I would rather belong to the other groups” (commitment to the group), “I feel strong ties to other group members” (ingroup ties), and “I often regret that I am a member of my groups (ingroup affect). Participants responded to each statement using a 5-point Likert-type scale (1 = *Strongly Disagree*, 5 = *Strongly Agree*).

Measure of Relationship Attachment Style

Bartholomew and Horowitz’s (1991) Relationships Questionnaire is a self-report instrument that is designed to assess adult attachment style. The Relationships Questionnaire consists of four sets of statements, each describing a category or style of attachment. Participants choose and rate which set of statements best describes them. The four attachment styles, as initially named and described, are (1) *Secure*: “It is relatively easy for me to become emotionally close to others. I am comfortable depending on others and having others depend on me. I don’t worry about being alone

or having others not accept me”; (2) *Dismissive-avoidant*: “I am comfortable without close emotional relationships. It is very important to me to feel independent and self-sufficient, and I prefer not to depend on others or have others depend on me”; (3) *Preoccupied*: “I want to be completely emotionally intimate with others, but I often find that others are reluctant to get as close as I would like. I am uncomfortable being without close relationships, but I sometimes worry that others don't value me as much as I value them; and (4) *Fearful-avoidant*: “I am somewhat uncomfortable getting close to others. I want emotionally close relationships, but I find it difficult to trust others completely, or to depend on them. I sometimes worry that I will be hurt if I allow myself to become too close to others”.

As discussed in Chapter 1, Bartholomew and Horowitz’s (1991) secure, preoccupied, and fearful-avoidant categories are conceptually similar to Hazan and Shaver’s (1987) secure, anxious-ambivalent, and avoidant types of adult attachment respectively.² For the purpose of the current study, attachment style was assessed by asking participants to read Bartholomew and Horowitz’s (1991) four descriptions of attachment styles and then to choose the style that best described them or was closest to the way that they are. This approach allowed the direct use of attachment style as a categorical variable in the further analyses.

Results

Factor Analysis

After reverse-scoring negatively-worded items, I conducted a factor analysis following the approach taken in Studies 1 and 2. A principal axis factor analysis

² I will use the terms anxious-ambivalent and preoccupied interchangeably.

extracted six factors with eigenvalues larger than one. However, the scree plot test (Cattell, 1996) revealed that there was a break after the fourth factor (see Figure 3).

Consistent with the scree plot, the results of a parallel analysis (Horn, 1965; Watkins, 2000) identified only four factors with eigenvalues larger than the criterion eigenvalues for a randomly generated sample with the same matrix design (Table 8). Hence, I accepted that a four-factor structure described the CSCIIS data most accurately.

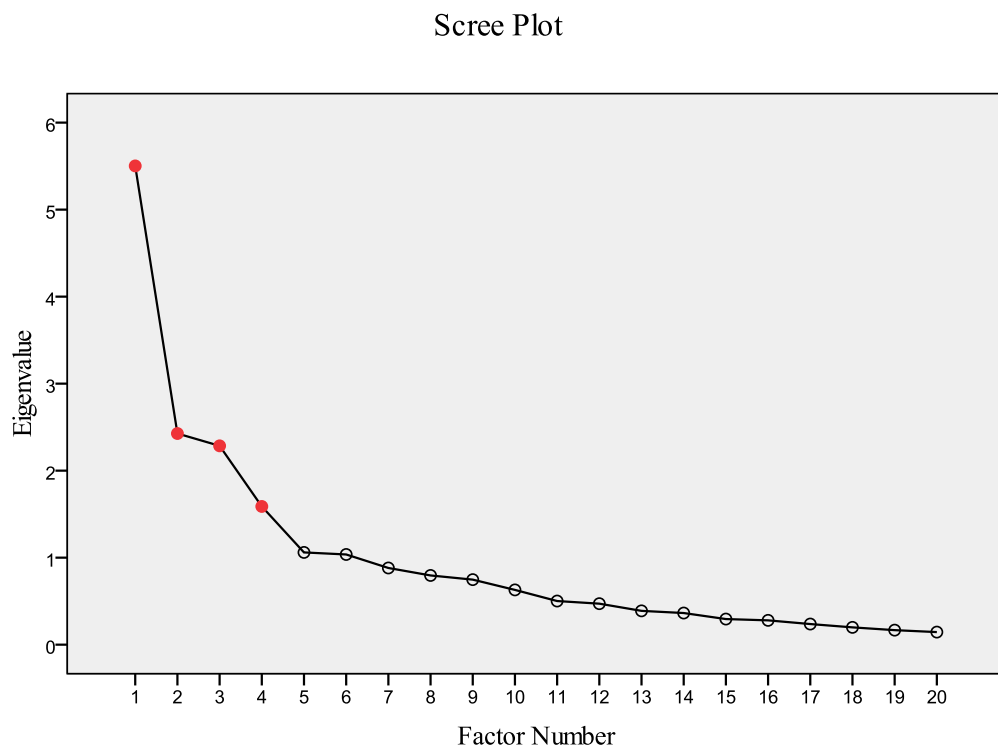


Figure 3. Eigenvalues as a function of factors extracted from the CSCIIS

Based on these analyses and a priori theory, I extracted four factors using a promax rotation and item loadings $\geq .30$ as cut-off criteria. These four factors accounted for 59.01% of the total variance.

Table 8

Comparison Between Criterion Eigenvalues From Parallel Analysis and the Eigenvalues From the Current Principal Axis Factoring

Factor Number	Actual Eigenvalue	Criterion Eigenvalue from Parallel Analysis	Outcome
1	5.50	1.80	Retain
2	2.43	1.65	Retain
3	2.29	1.52	Retain
4	1.59	1.43	Retain
5	1.06	1.34	Drop
6	1.04	1.26	Drop

The first factor accounted for 27.51% of the variance and had an eigenvalue of 5.50. The four salience items and the two importance items showed the largest positive loadings on this factor, with factor loadings ranging from .51 to .76. It was clear that this factor represented centrality as previously identified in Study 2.

The second factor accounted for 12.13% of the variance and had an eigenvalue of 2.43. All four interdependent identification items showed the largest positive loadings on this factor, ranging from .50 to .80. The factor was identified as interdependent identification.

It should be mentioned here that two communal identification items also loaded most strongly, but negatively, on this factor with factor loadings of -.61 and -.45. The first item (“I don’t care about the people in my groups”) did not load on any other factor above the $\geq .30$ criteria. This item did the same in Study 2 and therefore was excluded from further analyses. Following the same approach in the present study, the item was once again excluded from all analyses.

The second item (“I empathize with the other people in my groups”) loaded on another factor above the $\geq .30$ cut of criteria with a factor loading of .42. Given that this other factor appeared to represent communal identification, and considering the

significant negative correlation between communal and interdependent identification found in all studies, I retained and analyzed this second communal item with the communal identification subscale.

The third factor accounted for 11.43% of the variance and had an eigenvalue of 2.29. The four social identification items showed the largest loadings on this factor, with factor loadings ranging from .70 to .78. It was clear that this factor represented social identification.

The fourth factor accounted for 7.94% of the total variance and had an eigenvalue of 1.59. Two global identification items and three communal identification items showed the largest positive loadings on this factor, ranging from .36 to .51. Similar to Study 2, the current results did not provide empirical evidence to support the existence of a global identification factor. Moreover, the global identification factor identified in Study 1 had all characteristics of a method factor. Therefore, I accepted that the items tapping global identification should be excluded from further analyses in the current study. Follow this decision and given that the three communal items loaded strong on this factor, this factor was labeled communal identification. Table 9 shows the factor loading of the items on each of the four identified factors of CSCIIS.

Reliability and Interitem Correlations

Except for communal identification, Cronbach's alphas for all of the other CSCIIS subscales were in the range recommended by Clark and Watson (1992) for good or adequate reliability. For the centrality subscale, $\alpha = .82$; for the social identification subscale, $\alpha = .82$; for the communal identification subscale, $\alpha = .51$; and for the interdependent identification subscale, $\alpha = .82$.

As an additional indicator of internal consistency, the average interitem correlations for all subscales were found to be satisfactory. The mean values were: .43

for the centrality subscale, .53 for the social identification subscale, .26 for the communal subscale, and .53 for the interdependent identification subscale.

Table 9

Items and Factor Loadings of the 20-Item Version of CSCIIS

Item	Factor			
	1	2	3	4
<i>Centrality</i>				
The fact that I am member of my groups rarely enters my mind.*	.76			
I often think about what it means to be in my groups.	.75			
I don't think very much about my groups.*	.72			
I often think about the fact that I am in my group.	.72			
My group is important to my sense of who I am.	.56			
My group is unimportant to my self-image.*	.51			
<i>Interdependent identification</i>				
I keep track of benefits I have given to other members of my group.		.80		
When I give something to another person in my groups, I generally expect something in return.		.75		
I do not expect anything in return for favours I have done for the other people in my groups.*		.74		
I would sacrifice my self-interest for the benefit of the other people in my groups.*		.49		
<i>Social identification</i>				
There is very little difference between myself and other members of my group.			.78	
I am not the same as the other people in my group.*			.77	
I am quite similar to the other people in my group.			.71	
The people in my group are quite different from me.*			.70	
<i>Communal identification</i>				
I do not identify with my group.* (global identification item)				.51
I identify with the other people in my group. (global identification item)				.49
I have many close friends in my group.				.47
I empathize with the other people in my group.		-.45		.42
I have fairly superficial relationships with the other people in my groups.*				.36
I don't care about the people in my group.*		-.61		

Note. Items with asterisk are reverse scored. The cut-off criteria used for including factor loadings in the table is $> .30$.

Construct Validity

Correlations Within the CSCIIS

Consistent with the results of Studies 1 and 2, the communal identification subscale showed a significant negative correlation with the interdependent identification subscale ($r = -.31, p < .01$). The interdependent identification subscale also showed a significant negative correlation with the centrality subscale ($r = -.34, p < .01$) and the social identification subscale ($r = -.29, p < .01$). The centrality subscale had a significant positive correlation with the social identification subscale ($r = .23, p = .05$). The negative correlation of interdependent identification with centrality and social identification may have occurred because interdependent identification is primarily based on more distant relationships with the group members. Thus, it is likely that engaging in interdependent identification with a group will reduce the perceived centrality of the group and the perceived similarity between the group members (social identification).

On the other hand, an increase in social identification should lead to an increase in perceived similarity and centrality of the group, because the group as a whole becomes more important than individual group members. This last suggestion explains the positive correlation between social identification and centrality found in the study.

Correlations Between CSCIIS and Other Identification Subscales

In order to provide further construct validity for the CSCIIS model, I investigated the degree of correlation between each of the CSCIIS's subscales with a set of previously validated measures. These measures included: Paulhus's (1984) BIDR, Luhtanen and Crocker's (1992) Collective Self-Esteem Scale (Membership subscale), Ellemers et al.'s (1999) Social Identification Scale (Group Self-Esteem and Commitment to the Group subscales), and Cameron's (2004) Three-Factor Social

Identification Scale (Ingroup Ties and Ingroup Affect subscales). The BIDR was conceptually unrelated to ingroup identification while the other measures assessed different constructs of identification. As expected, all of the proposed types of ingroup identification in CSCIIS had satisfactory correlations with the established measures of identification (see Table 10).

These results served as evidence for the concurrent and divergent validity of my model, showing that centrality, social, communal, and interdependent identification are related but not identical to the other constructs of identification. However, I should clarify a few trends and moderate correlations that warrant additional attention. The fact that centrality correlated moderately with group self-esteem ($r = .33$) and affect ($r = .41$) is logically and theoretically explainable. Ellemers (1993) and Ellemers and Barreto (2000) have shown that people tend to increase or reduce their level of ingroup identification in response to the perceived status of their ingroup. People are more motivated to identify with groups that provide a positive identity (Tajfel & Turner, 1979). The more successful and good one's group is (high collective self-esteem), the more the person thinks about that group (high centrality). Consistent with this finding, Luhtanen and Crocker (1992) found positive correlations between importance of identity (which is included in my construct of centrality) and private self-esteem (which is similar to Ellemers et al.'s (1999) construct of group self-esteem) that ranged between .41 and .53. This explanation also encompasses the correlation between centrality and affect ($r = .41$) given that affect and group self-esteem are very similar constructs ($r = .72$).

Table 10

Correlations Between Types of Identification and Established Measures of Different Identification Constructs

	Centrality	Social	Communal	Affect	Ties	Membership	Commitment	Group Self-Esteem
Interdependent	-.34**	-.29**	-.31**	-.40**	-.26**	-.11	-.13	-.30**
Centrality		.23*	.06	.41**	.18*	.20**	.23*	.33**
Social			.12	.27**	.28**	.14	.00	.10
Communal				.22*	.46**	.34**	.22*	.26**
Affect					.50**	.52**	.20*	.72**
Ties						.52**	.17	.39**
Membership							.19**	.39**
Commitment								.12

Note: $N = 122$. ** Correlation is significant at the .01 level.* Correlation is significant at the .05 level.

As explained in Chapter 1, communal identification is to some extent similar to Cameron's (2004) ingroup ties factor because people involved in communal identification feel strong ties with other group members. Indeed, few of the items in my communal scale are similar to Cameron's ingroup ties items. For example, the CSCIIS item "I have fairly superficial relationships with the other people in my groups" is similar to Cameron's (2004) items "I find it difficult to form a bond with other members of my groups" and "I don't feel a sense of being connected with other members of my groups". However, unlike ingroup ties, communal identification does not involve the perception of similarity between the group members but is based on close relationships between the group members that enhance the willingness to sacrifice self-interests for the benefits of others. This could explain the level of correlation ($r = .46$) between these closely related but distinct constructs. In addition, caring about other group members and willing to help them increases the individual's perception of worthiness. This is probably the reason for the moderate level of correlation between communal identification and Luhtanen and Crocker's (1992) group membership subscale ($r = .34$).

Finally, the negative correlation between interdependent identification and all of the other measures, including the other CSCIIS subscales, is also theoretically understandable. Most forms of identification involve an acknowledgment of the group and/or its members at the expense of the individual self. For example, centrality means that the group is an important part of the self. Social identification means that people lose their self-perception as unique individuals. Communal identification means that people retain their sense of self as unique individuals, but are willing to sacrifice their individual needs for the benefit of other group members. In contrast, interdependent identification means that people retain their sense of individuality in terms of (1) its importance in their self-concept, (2) their self-perception, and (3) their self-interest and

only relate to the group as an instrument for achieving individualistic goals. Hence, the negative relationship between interdependent identification and the other forms of identification is explainable in terms of the negative relationship between personal identity and social identity (Tajfel & Turner, 1979; Turner et al., 1987).

Correlations Between the CSCIIS and BIDR

A separate correlational analysis revealed only two significant correlations between the CSCIIS subscales and the BIDR. There was a significant positive correlation between centrality and the impression management subscale of BIDR ($r = .22, p = .01$) and a significant negative correlation between social identification and the impression management subscale of the BIDR ($r = -.19, p = .04$). This latter result may reflect a concern among the participants about not wanting to report that they perceived themselves to be particularly similar to other members of their group, and it may be attributed to a general need for uniqueness among Westerners (Snyder & Fromkin, 1977). However, the fact that these two correlations were both small and no other correlations between the CSCIIS's subscales and BIDR were found ($ps > .05$) provides good evidence for the divergent validity of CSCIIS.

Gender and Cross-Cultural Variations in Types of Identification

Based on previous research on self-construal (Baumeister & Sommer, 1997; Cross & Madson, 1997; Gabriel & Gardner, 1999), I initially predicted gender differences in social and communal identification. However, the results of Studies 1 and 2 did not support this prediction. In this study, I continued to test for variations as a function of gender in order to confirm these null findings and draw a final conclusion about this prediction. I conducted a series of independent samples t test using gender as an independent factor and the four subscales of CSCIIS as dependent variables. As in

the previous studies, there were no gender differences in types of identification ($ps > .07$)

Following previous research that provided evidence of cultural differences in self-construal (Oyserman et al., 2002), I initially suggested that Westerners would show higher communal and interdependent identification than non-Westerners, and that non-Westerners would show higher social identification than Westerners. The result of Studies 1 and 2 supported the above predictions in relation to social and communal identification. In the current study, I continued to test for variations in types of identification as a function of culture in order to arrive at a final conclusion regarding cross-cultural differences in ingroup identification. For the analysis of cross-cultural variations in this sample, I once again calculated an index of Westernness using the data from the four items that assessed participants' cultural background. I then correlated the index of Westernness with the four types of identification assessed in CSCIIS. Consistent with Study 1's results, social identification showed a significant negative correlation with the combined index of Westernness ($r = -.19, p = .04$), indicating that people from Western cultures have lower levels of social identification than people from non-Western cultures. No other significant correlations were found ($ps > .14$).

Type of Group and Type of Identification

In this study, I continued testing whether different types of groups enhance different types of ingroup identification. I expected people to show higher social identification with broad category based groups, higher interdependent identification with task groups, and higher communal identification with intimacy groups. Study 1 provided initial support for the last of these three predictions. In Study 1, I analysed the data from a single item that asked participants to type the top three groups that they were thinking about when they responded to the CSCIIS statements. Participants'

answers on this measure were combined to create three variables named intimacy, task, and category. Similar to Study1, the results showed that participants were mainly thinking about intimacy groups followed by task groups and social category groups. Only 20 participants listed category groups in their answers. These variables were then correlated with the subscales of CSCIIS.

In the current study, I used the same item and took an identical approach to investigate the relation between type of group and type of identification. The results of the correlational analysis (Table 11) confirmed predictions in regards to communal and interdependent identification and added to the findings of Study 1.

Table 11

Correlations Between Types of Groups and Types of Identification

	Social	Communal	Interdependent	Centrality
Category	.05	-.12	.06	-.13
Intimacy	.02	.36**	-.28**	.23**
Task	-.05	-.31**	.25**	-.13

Note: N = 122. ** Correlation is significant at the .01 level. * Correlation is significant at the .05 level.

Consistent with predictions, communal identification had a significant positive correlation with the intimacy groups variable ($r = .36, p < .01$) and significant negative correlation with the task groups variable ($r = -.31, p < .01$). In addition, interdependent identification had a significant positive correlation with the task groups variable ($r = .25, p < .01$) and a significant negative correlation with the intimacy groups variable ($r = -.28, p < .01$). Finally, centrality had a significant positive correlation with the intimacy

groups variable ($r = .23, p = .01$). Again, no significant correlations between social identification and type of groups variables were found ($ps > .60$).

Attachment Style and Types of Identification

Based on the Bartholomew and Horowitz's (1991) Relationships Questionnaire responses, 37 participants reported having a secure attachment style, 19 reported having a preoccupied attachment style, 33 reported having a fearful-avoidant attachment styles, and 33 reported having a dismissive-avoidant attachment style. To investigate the effect of attachment style on different types of identification, I conducted a series of one-way between-subject ANOVAs using attachment style as an independent factor and each of the subscales of the CSCIIS as dependent variables.

There was a significant effect of attachment style on social identification, $F(3, 118) = 4.92, p < .01, \eta_p^2 = .11$. Levene's test revealed a significant violation of the assumption of homogeneity of variances ($p = .03$). Therefore, I used Games-Howell's post hoc test in my follow-up analyses because it is designed for unequal variances and unequal sample sizes. Participants who had a secure attachment style had significantly higher social identification ($M = 3.05$) than participants who had a dismissive-avoidant attachment style ($M = 2.30$). There were no significant differences in social identification between any of the other attachment styles ($ps > .07$). Figure 4 shows the mean scores on social identification for the four different attachment style groups.

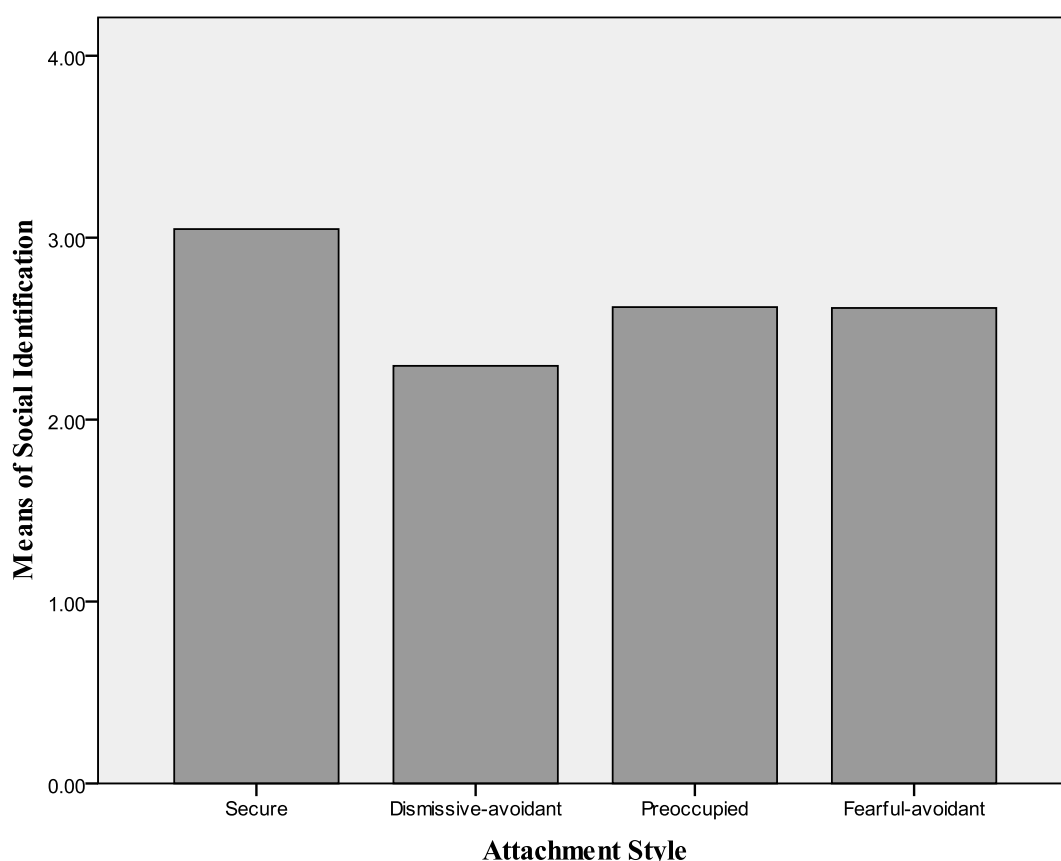


Figure 4. Differences in the mean scores on social identification as a function of attachment style.

There was also a statistically significant effect of attachment style on communal identification, $F(3, 118) = 5.22, p < .01, \eta_p^2 = .12$. In this case, the assumption of homogeneity of variance was not violated ($p = .12$). The results of a series of LSD post hoc tests showed that participants who had a secure attachment style had significantly higher communal identification ($M = 3.92$) than participants who had either a dismissive-avoidant attachment style ($M = 3.32$) or a fearful-avoidant attachment style ($M = 3.47$). Participants who had a secure attachment style also had significantly higher communal identification ($M = 3.92$) than participants who had a preoccupied attachment style ($M = 3.53$). Figure 5 shows the mean scores on communal identification for the four different attachment styles groups.

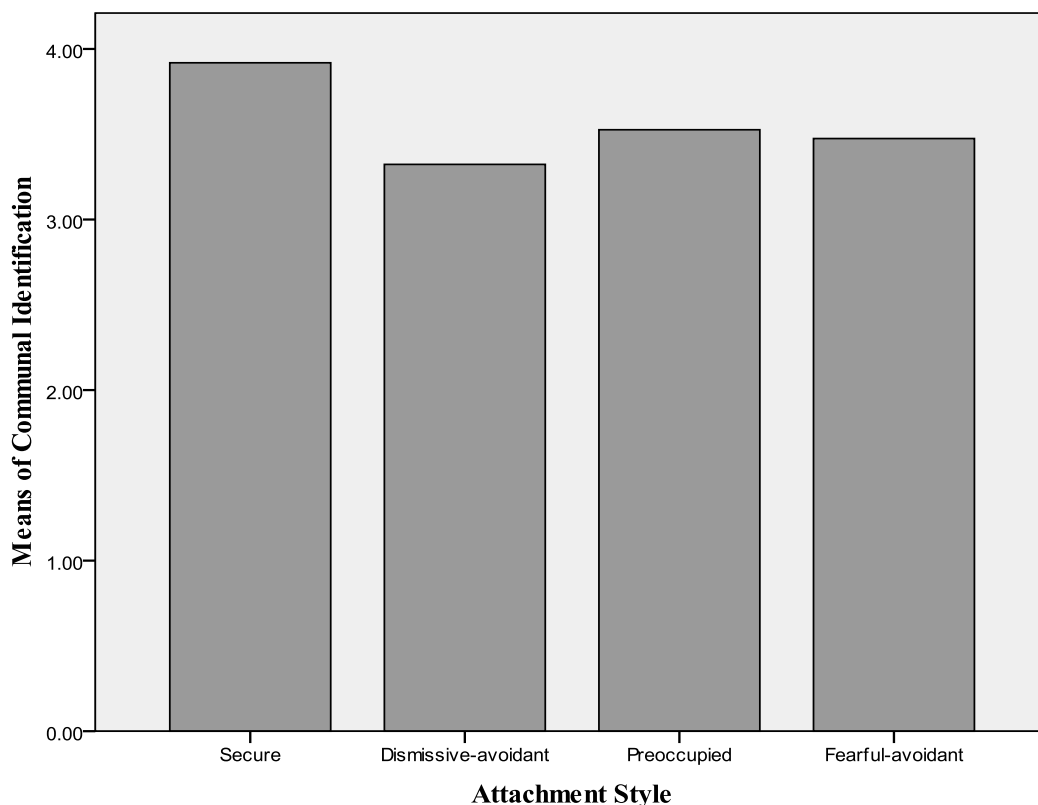


Figure 5. Differences in the mean scores on communal identification as a function of attachment style.

There was also a significant effect of attachment style on interdependent identification, $F(3, 118) = 5.23, p < .01, \eta_p^2 = .12$. Once again, the assumption of homogeneity of variances was violated ($p = .04$). The results of a series of Games-Howell post hoc tests showed that participants who had a secure attachment style had significantly lower interdependent identification ($M = 2.11$) than participants who had a dismissive-avoidant attachment style ($M = 2.88$). There were no significant differences in interdependent identification between any of the other attachment styles ($ps > .11$). Figure 6 shows the mean scores on interdependent identification for the four different attachment styles groups. No effect of attachment style on centrality was found ($p = .16$).

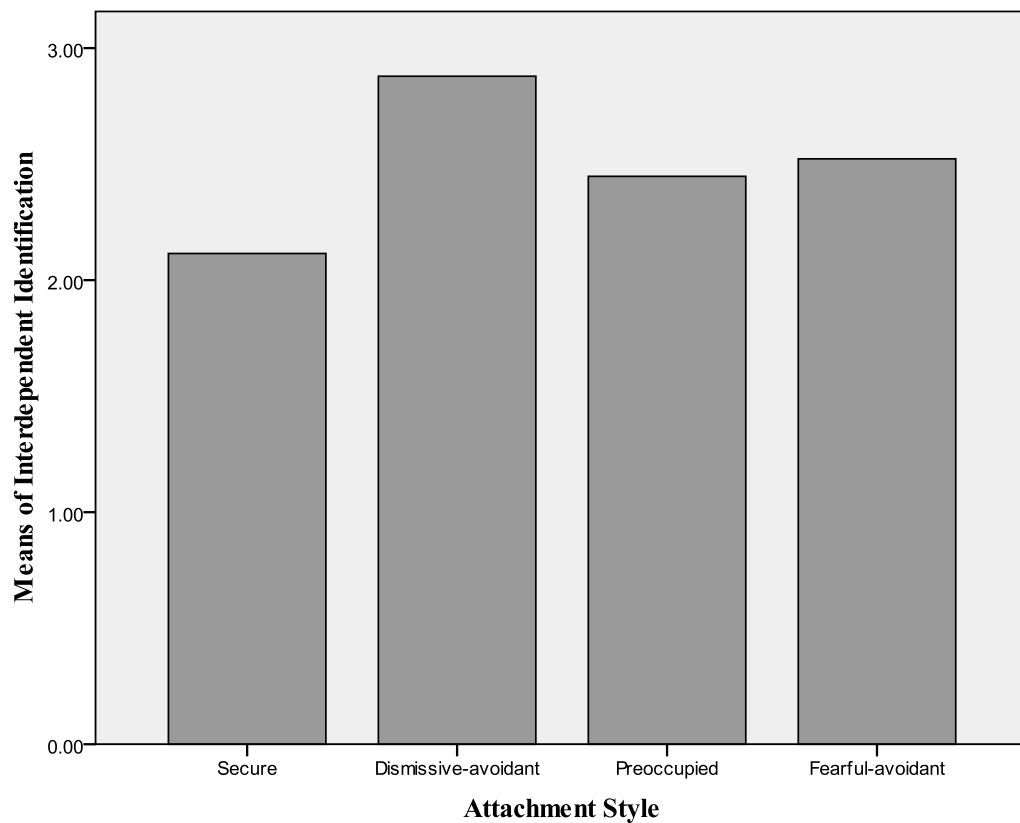


Figure 6. Differences in the mean scores on interdependent identification as a function of attachment style

Discussion

Validity of the Different Types of Ingroup Identification

The results of the exploratory factor analysis demonstrated a stable pattern of distinctions between the different types of ingroup identification. As in Study 2, centrality, social, communal, and interdependent identification were clearly identified as separate factors in this new sample. None of the extracted four factors consisted of only positive or only negative items. Hence, none of the four factors appeared to represent method factors (Russell, 2002). The data confirmed the credibility of the much clearer and theoretically sound four-component structure of CSCIIS that emerged in Study 2 and did not support the existence of global identification as a more general type of identification. The small-to-medium-sized correlations between the CSCIIS's subscales

and other established measures of identification (ingroup ties, group membership, commitment to the group, ingroup affect) indicate that the CSCIIS subscales are assessing valid forms of group identification that are related to, but distinct from the above previously discussed dimensions of identification.

Gender and Cross-Cultural Variations in Types of Identification

Previous research has indicated gender differences in self-construal (Baumeister & Sommer, 1997; Cross & Madson, 1997; Gabriel & Gardner, 1999). Following the close theoretical relationship between types of self-construal and types of identification, I expected to find gender differences in type of identification. However, the results of the current study confirmed the findings from Studies 1 and 2 of nonsignificant variations in type of ingroup identification as a function of gender. Given the consistency of these null results across three independent samples, it is likely that being male or female will not affect one's social, communal, or interdependent identification with groups or the centrality of one's groups in self-definition. However, this possibility will be tested once again in the next study of this work.

The data from the cross-cultural comparison in this study partly supported previous findings. In both Studies 1 and 2, Western participants had higher communal identification than non-Western participants. In addition, Study 1's results showed that non-Westerners scored significantly higher on social identification than Westerners. This last result, however, was not confirmed in Study 2 where the difference between Westerners' and non-Westerners' social identification was not significant. In support of Study 1's findings and consistent with predictions, the cross-cultural analysis in the current sample revealed that non-Western participants had significantly higher levels of social identification than Western participants. No other significant differences in types of identification as a function of culture were found. One explanation for this partial

discrepancy between studies could be related to the type of group that participants thought about when they completed the questionnaire. Preliminary analyses of the relation between group type and type of identification suggested that different types of groups are connected with different types of identification. Hence, asking participants to think about an intimacy group in Study 2, for example, might have affected the overall social identification in the whole sample and obscured cross-cultural differences in social identification.

Summarizing the cross-cultural findings of all three studies, the results revealed a pattern of predicted differences in type of identification as a function of culture. As expected, Westerners scored significantly higher on communal identification than non-Westerners, and non-Westerners scored significantly higher on social identification and centrality. However, the stability of these results across different samples might depend on the type of group participants thought about when completing the CSCIIS.

Type of Group and Type of Identification

In Study 1 and in the current study, I conducted preliminary tests of the relationship between different types of groups and different types of ingroup identification. I expected people to show greater social identification with broad social category groups, greater communal identification with intimacy groups, and greater interdependent identification with task groups. The results of Study 1 revealed a positive correlation between communal identification and the salience of intimacy groups. The results also revealed a negative correlation between communal identification and task groups and between interdependent identification and intimacy groups. The data from the current correlation analysis fully supported all previous findings. Consistent with predictions, communal identification was once again found to correlate positively with the extent to which people think about intimacy groups. In

addition, consistent with predictions, the current results showed a significant positive correlation between interdependent identification and the extent to which people thought about task groups. Finally, there was a positive correlation between centrality and intimacy groups in this study. This may be explained in relation to the considerable importance of such groups for participants. In support of this assumption, Lickel et al. (2000) found that “people value intimacy groups (such as family and friendship groups) more highly than other types of groups” (p. 243). In the specific context of the present study that asks participants to think about all their social groups in general, the groups that have the highest identity value (i.e. intimacy groups) are very likely to be listed in the top three salient groups and should be expected to be more central for the identifying individual (higher centrality).

Type of Attachment Style as a Predictor of Type of Identification

The primary goal of this study was to investigate whether different attachment styles could predict type of identification. The results confirmed most of the initial hypotheses. People who had a secure attachment style had significantly higher social identification than people who had a dismissive-avoidant attachment style. Participants who had a secure attachment style had significantly higher communal identification than participants who had either a dismissive-avoidant attachment style or a fearful-avoidant attachment style. Participants with secure attachment style also showed higher communal identification than participants who had preoccupied (anxious/ambivalent) attachment style. These findings suggest that, compared to avoidant and preoccupied individuals, secure individuals are more likely to engage in close, friendly relationships with other group members (communal identification). At the same time, secure individuals are less concerned than avoidant individuals in seeing themselves, or being seen, as similar to other group members (social identification).

I did not find any evidence showing higher levels of social identification for preoccupied (anxious/ambivalent) individuals compared to secure individuals. The lack of support for this prediction could be related to the relatively small number of participants who reported having a preoccupied attachment style ($N = 19$).

In addition to the above results, the data showed a trend that was not initially predicted. Participants with secure attachment style scored significantly lower on interdependent identification than participants with dismissive-avoidant attachment styles. This result implies that dismissive-avoidant individuals would generally prefer less close, exchange based relationships with other group members that allow identification without sacrificing self-interests and perception of similarity between members. No interaction between attachment style and group type was found in relation to any of the investigated types of ingroup identification ($ps > .06$).

Study Limitations

The current study had some limitations that need to be pointed out. First, the results of the factor analyses revealed some minor discrepancies between this and the previous study. Although the four-factor structure of CSCIIS that emerged here replicated the results of Study 2, two of the communal items showed inconsistent loadings across samples. Additional data is required in order to reach firmer conclusions about the validity of these items.

Unlike Study 2, where the ratio between Western and non-Western participants was relatively equal, only about 20 percent of participants in this study were classified as non-Western. This unequal sampling of Western and non-Western participants reduced the power of the cross-cultural tests in the current study. However, the fact that these results supported previous findings and were consistent with predictions is

important because it allows some conclusions and generalizations on the cross-cultural differences in types of identification across different samples.

Finally, this study employed a single self-report measure of adult attachment style in which attachment style was assessed as a categorical rather than continuous variable. Given that this research only looked at general patterns of adult attachment as predictors of types of identification, this approach served well for the specific purpose of this investigation. However, it is recommended that researchers who are interested in more complex interactions between attachment style and type of ingroup identification use combined sets of measures (e.g. attachment interviews, q-sort assessments, questionnaires and rating scales).

Summary

The theoretical framework of this study was based on the distinction between different types of ingroup identification and their expected different interactions with individuals' relationships attachment style. The results of the CSCIIS analysis revealed that centrality, social, communal, and interdependent identification are valid constructs that are related, but also distinct from other previously identified factors of ingroup identification such as group self-esteem (Ellemers, 1999), commitment (Ellemers, 1999), ingroup ties (Cameron, 2004), ingroup affect (Cameron, 2004), and group membership (Luhtanen & Crocker, 1992). Most important, each of the investigated four types of ingroup identification appeared to vary independently as a function of attachment style, showing that particular prototypic attachment styles are associated with an increase in only certain types of identification. These findings supported the idea that relationship attachment style has an important effect on people's identification with social groups and can serve as a predictor of preferred types of ingroup identification. In addition, the research once again provided evidence that culture has a

significant effect on the way that people identify with their groups and rejected predictions for gender differences in types of identification.

CHAPTER FIVE: THE RELATIONSHIP BETWEEN DIFFERENT TYPES OF GROUPS AND DIFFERENT TYPES OF INGROUP IDENTIFICATION

Overview

In this chapter, I report the results of Study 4. The general aim of the study was to investigate the relation between different types of groups and different types of ingroup identification using a more systematic approach than in Studies 1-3. It was hypothesized that particular types of group would be associated with particular types of ingroup identification.

Introduction

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 1997, Caporael & Brewer, 1995; Deaux et al., 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 et al. (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, nation, work organization, etc.). In contrast, the current research focuses on different types of ingroup identification and their relation with a variety of social groups that differ in size, meaning and purpose.

Specifically, I 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. I 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, I expected people to show stronger interdependent identification with task groups (e.g., juries, 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 (Mackie & Smith, 1998) 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 (Lewin 1948, 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 my 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 et al. (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 my current work, two of the four relationship principles: market pricing and communal sharing, are of a particular interest because they correspond to my 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, my distinction between communal and interdependent identification is based on the distinction between communal 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, I 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.

Previous Studies

In a preliminary test of the group type hypotheses, I investigated the relationship between different types of groups and the four different types of ingroup identification in Studies 1 and 3. In these studies, I used the data from a single item that asked participants to type the top three groups that they thought about as they completed the questionnaire. Based on this item, I created three variables named intimacy group, task group and category group. I then correlated these variables with each of the subscales of the CSCIIS 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 (Studies 1 and 3) and a significant positive correlation between interdependent identification and the extent to which people thought about task groups (Study 3). The results of both Studies 1 and 3 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 Study 3's 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.

The Present Research

The current study is a more systematic and extensive examination of the exact link between different types of groups and different types of ingroup identification. In Studies 1 and 3, 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 Studies 1 and 3 leads 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, I 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.

Factor Structure of CSCIIS

The results of previous studies revealed a four-factor structure of CSCIIS in which, consistent with expectations, centrality, social, communal and interdependent identification emerged as separate factors. In this study, I continued to analyze the factor structure of the scale and aimed to provide additional supportive evidence for the validity of the distinction between the above four different types of ingroup identification.

Method

Participants

The information statement for this study asked people who took part in Studies 1, 2, and 3 not to participate in the present research. During a three-month period, I collected data from 143 participants. However, 14 participants did not fully complete the questionnaire. Following previously set 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 I analyzed the data from 81 participants (see footnote on page 148).

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. Similar to Studies 1 and 3, 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 CSCIIS. The general instruction for the scale was modified to refer to a single group of a specific type. 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. Each participant read the following text:

We are all members of different social groups. These social groups might refer to INTIMACY GROUPS such as family, friends, romantic partners, gangs, etc. They might also refer to TASK GROUPS such as study groups, sports teams, work groups, committees, etc. Or they might refer to SOCIAL CATEGORIES based on gender, nationality, religion, ethnicity, etc. We would like you to consider your memberships in one of your INTIMACY GROUPS [or TASK GROUPS, or SOCIAL CATEGORY GROUPS] and respond to the following statements on the basis of how you feel about this group and your membership in it.

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

Factor Analysis

The number of participants in this study ($N = 81$) is below the commonly recommended minimum of 100 participants (Gorsuch, 1993, Kline, 1994) for conducting exploratory factor analysis. However, Mundfrom et al. (2005) noted that “there is no shortage of recommendations regarding the appropriate size to use when conducting a factor analysis. Suggested minimums for sample size include from 3 to 20 times the number of variables and absolute ranges from 100 to over 1,000. For the most part, there is little empirical evidence to support these recommendations.” (p. 159). In addition, Russell’s (2002) review of articles published in *Personality and Social*

Psychology Bulletin in the years 1996, 1998 and 2000 reveals that 54 (39%) of all studies that reported exploratory factor analyses in this period had samples of 100 or *fewer* participants. Given the above arguments, it was decided that reporting the results of the current factor analyses would be acceptable and could bring valuable evidence towards the validity of the proposed distinction between centrality, social, communal, and interdependent identification. However, these results should be treated with caution.

After reverse-scoring negatively-worded items, I conducted a factor analysis following the approach taken in all previous studies. A principal axis factor analysis extracted six factors with eigenvalues larger than one. However, the scree plot test (Cattell, 1966) revealed that there was a break after the fourth factor (see Figure 7).

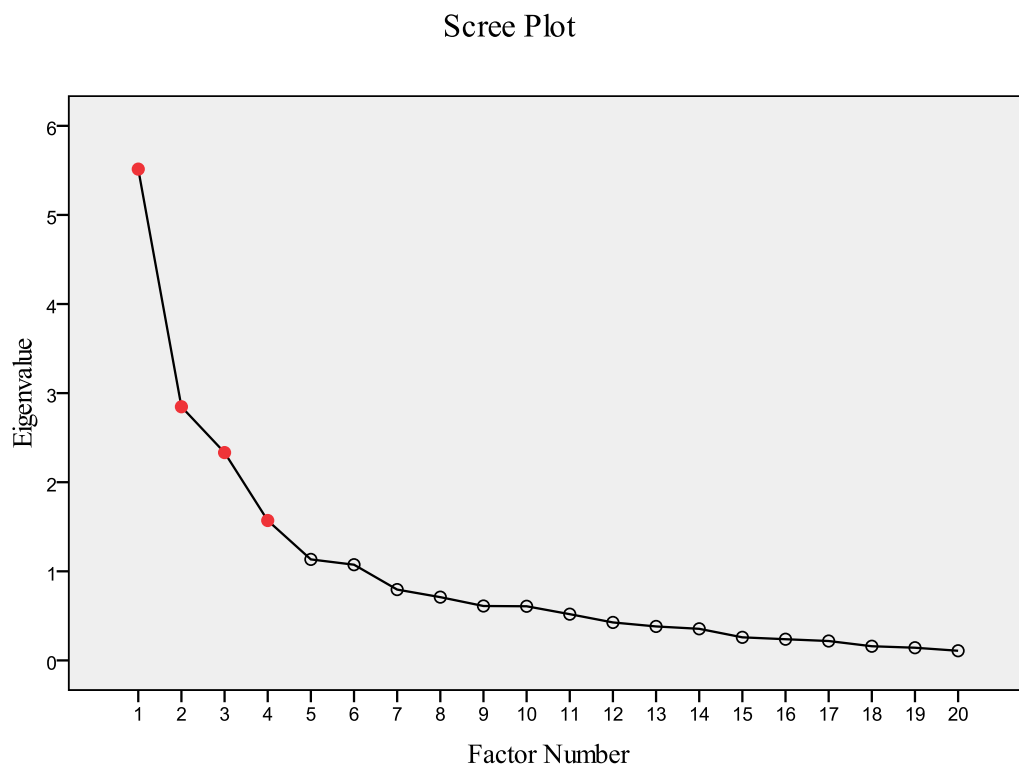


Figure 7. Eigenvalues as a function of factors extracted from the CSCIIS

Consistent with the scree plot, the results of a parallel analysis (Horn, 1965, Watkins, 2000) identified only four factors with eigenvalues larger than the criterion eigenvalues for a randomly generated sample with the same matrix design (Table 12). Hence, I decided that a four-factor structure represented the optimal solution.

Table 12

Comparison Between Criterion Eigenvalues From Parallel Analysis and the Eigenvalues From the Current Principal Axis Factor Analysis

Factor Number	Actual Eigenvalue	Criterion Eigenvalue from Parallel Analysis	Outcome
1	5.51	1.89	Retain
2	2.85	1.72	Retain
3	2.33	1.58	Retain
4	1.57	1.48	Retain
5	1.13	1.38	Drop
6	1.07	1.28	Drop

Based on these analyses and a priori theory, I extracted four factors using a promax rotation and item loadings $\geq .30$ as cut-off criteria. These four factors accounted for 61.32% of the total variance.

The first factor accounted for 27.57% of the variance and had an eigenvalue of 5.14. All four communal identification items, two global identification items, and two importance items showed the largest loadings on this factor, ranging from .41 to .73. With one communal item having the highest loading on this factor and the rest of the communal items also loading on this factor, this factor was labelled communal identification. Consistent with Study 2 and 3, the above results did not support the idea that global identification represents a separate factor. Following my previous approach to this issue, the two global identification items were excluded from further analyses.

The second factor accounted for 14.24% of the variance and had an eigenvalue of 2.85. The four social identification items showed the largest loadings on this factor, ranging from .72 to .84. It was clear that this factor represented social identification.

The third factor accounted for 11.66% of the variance and had an eigenvalue of 2.33. The four interdependent identification items showed the largest loadings on this factor, ranging from .38 to .89. It was clear that this factor represented interdependent identification. It should be noted that one of the reverse scored independence items (“I would sacrifice my self-interest for the benefit of the other people in my groups”) also loaded on the communal identification factor with a loading value of -.32. However, given the previously revealed negative correlation between interdependent and communal identification, it was decided that this item could be retained and analysed with interdependent identification.

The fourth factor accounted for 7.85% of the total variance and had an eigenvalue of 1.57. Four salience items showed the largest positive loadings on this factor, ranging from .50 to .82. I labelled this factor centrality.

One discrepancy between the results of the current factor analysis and the results from Studies 2 and 3 should be pointed here. In Studies 2 and 3, the centrality factor consisted of six items (four salience items and two importance items). In contrast, in this study only four items measuring the salience of the group loaded on the centrality factor. The two items measuring importance (“My group is unimportant to my self-image” and “My group is important to my sense of who I am”) that were previously associated with the centrality factor, loaded above the .30 cut-off criteria both on the communal factor and on the interdependent identification factor. Given that a similar pattern was not found in previous studies, it was decided that the above two importance

items should be excluded from further analyses. Table 13 shows the factor loading of the items on each of the four identified factors of CSCIIS.

Table 13

Items and Factor Loadings of the 20-Item Version of CSCIIS

Item	Factor			
	1	2	3	4
<i>Communal identification</i>				
I empathize with the other people in my group.	.73			
I do not identify with my group.* (global identification item)	.70			
My group is unimportant to my self-image.* (importance item)	.70		.35	
My group is important to my sense of who I am. (importance item)	.61		.30	
I have fairly superficial relationships with the other people in my group.*	.56			
I don't care about the people in my group.*	.54			
I have many close friends in my group.	.44			
I identify with the other people in my group. (global identification item)	.41			
<i>Social identification</i>				
There is very little difference between myself and other members of my group.		.84		
The people in my group are quite different from me.*		.77		
I am quite similar to the other people in my group.		.77		
I am not the same as the other people in my group.*		.72		
<i>Interdependent identification</i>				
When I give something to another person in my group, I generally expect something in return.			.89	
I do not expect anything in return for favours I have done for the other people in my group.*			.78	
I keep track of benefits I have given to other members of my group.			.77	
I would sacrifice my self-interest for the benefit of the other people in my group.*	-.32		.38	
<i>Centrality</i>				
The fact that I am member of my group rarely enters my mind.*				.82
I often think about what it means to be in my group.				.70
I often think about the fact that I am in my group.				.65
I don't think very much about my group.*				.50

Note. Items with asterisk are reverse scored. The cut-off criteria used for including factor loadings in the table is $> .30$.

Reliability and Interitem Correlations

Cronbach's alphas for all of the CSCIIS subscales were in the range recommended by Clark and Watson (1992) for good reliability. For the centrality (salience) subscale, $\alpha = .76$; for the social identification subscale, $\alpha = .86$; for the communal identification subscale, $\alpha = .73$; and for the interdependent identification subscale, $\alpha = .81$. The CSCIIS had an overall α of .65.

I calculated the average interitem correlations for each CSCIIS subscales as an additional indicator of internal consistency. The interitem correlations for all subscales were satisfactory. The mean values were .44 for the centrality subscale, .61 for the social identification subscale, .42 for the communal subscale, and .52 for the interdependent identification subscale.

Gender Differences in Types of Identification

Consistent with the findings of the previous three studies, there were no gender differences in types of identification in this sample. Once again, I conducted an independent sample t-test using centrality, social, communal, and interdependent identification as dependent variables and gender as an independent variable. All the results were non-significant ($ps > .31$), showing that male and female participants do not differ in their preferred types of identification with groups. In addition, there was no interaction between gender and group type in relation to any of the investigated types of identification ($ps > .05$).

Testing the Group Type Hypothesis

To investigate the impact that thinking about different types of group had on different types of ingroup identification, I 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.³

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, I used Games-Howell's post hoc test in my 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 8 illustrates the mean scores on social identification for the three different types of groups.

³ I 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.

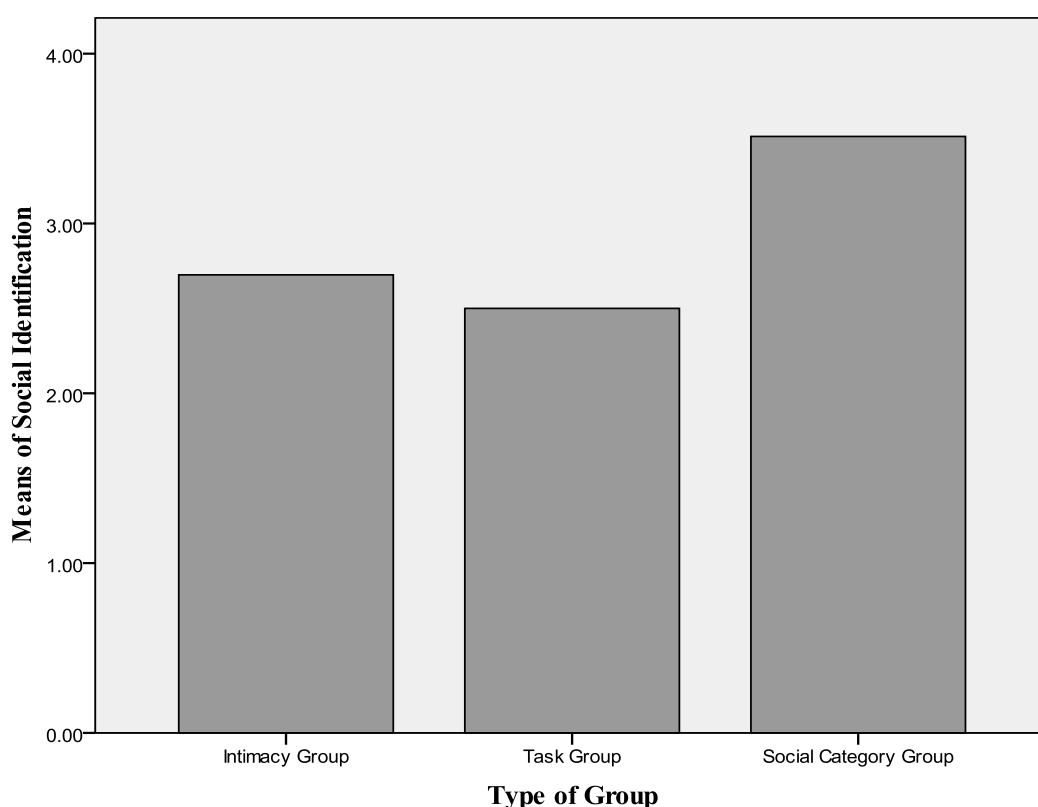


Figure 8. Differences in the mean scores of social identification as a function of group type.

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 I 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 9 illustrates the mean scores on interdependent identification for the three different types of groups.

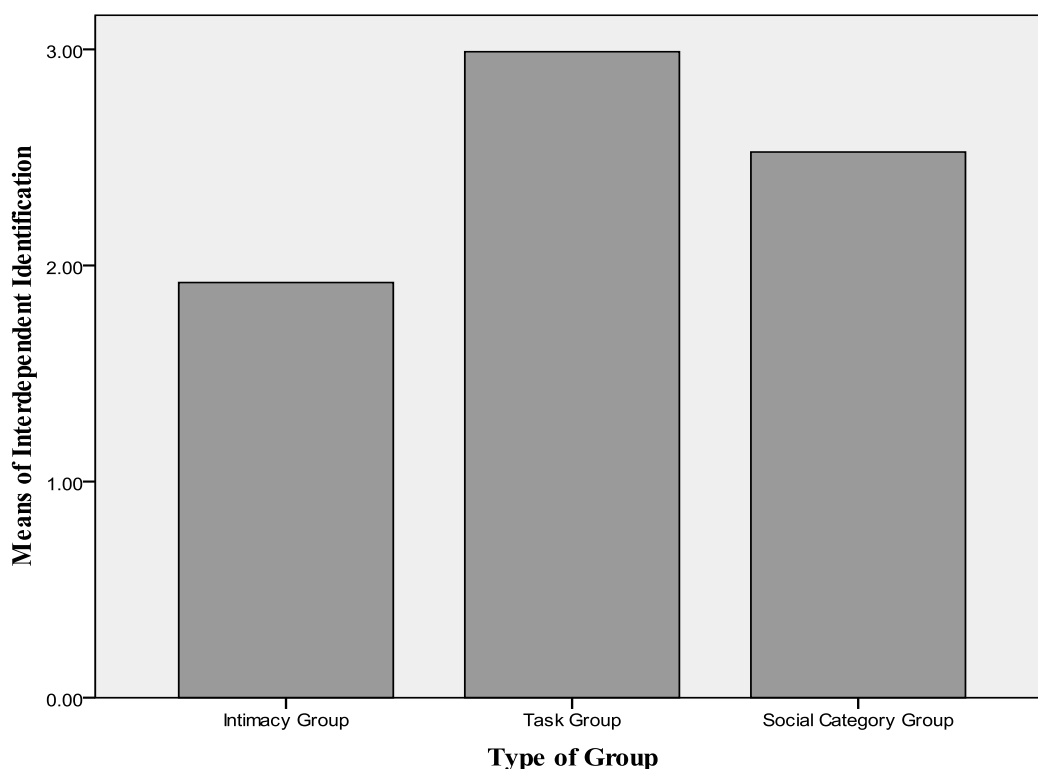


Figure 9. Differences in the mean scores on interdependent identification as a function of group type.

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 I 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 10 illustrates the mean scores on communal identification for the three different types of groups. The effect of group type on centrality was not significant, $F(2, 78) = 1.25, p = .29$.

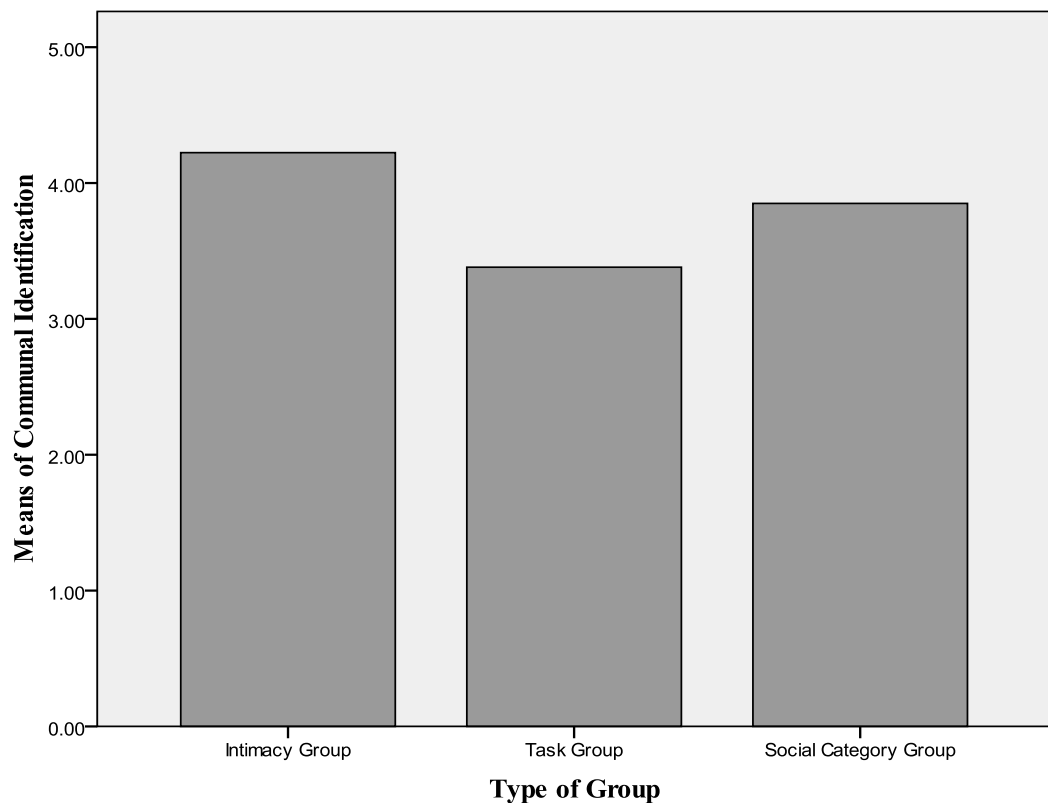


Figure 10. Differences in the mean scores on communal identification as a function of group type

Discussion

Factor Structure of the CSCIIS

Consistent with my predictions and previous studies, items measuring the four different types of ingroup identification loaded on separate factors. Centrality, social, communal and interdependent identification were once again clearly identifiable in a factor analysis, and these results provided strong supportive evidence for their divergent validity. However, there was one discrepancy between the current results and those of

Studies 2 and 3 that was related to the centrality factor of the scale. In Studies 2 and 3, the centrality factor consisted of four salience items and two importance items while in this study (and similar to Study 1) the centrality factor only consisted of the four salience items. The two importance items loaded most strongly on the communal identification factor, but also loaded on the interdependent identification factor above the .30 cut-off criteria. Given the strong theoretical rationale and empirical evidence that centrality is best conceived as combining salience and importance (Cameron, 2004; Leach et al., 2008; Obst & White, 2005), it is likely that the above discrepancy in the results was probably an aberration due to the specific task of the present study or the low number of participants in the factor analysis.

Finally, it should be clearly stated again that the number of cases in this study ($N = 81$) is below the generally recommended sample size of 100 or more participants for conducting a factor analysis. Therefore, the factor analyses findings should be treated with caution.

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. I 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 preliminary analyses conducted in Studies 1 and 3 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 Studies 1, 2, and 3 revealed a significant negative correlation between communal and interdependent identification.

Study Limitations

Two key 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, I excluded data from 48 participants from my 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 a subsequent study 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 will be recruited in further studies.

Summary

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 (Studies 1 and 3).

CHAPTER SIX: DIFFERENT TYPES OF INGROUP IDENTIFICATION AS A FUNCTION OF SPECIFIC TYPES OF GROUPS

Overview

In this chapter, I report the results of Study 5. The 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 4 and aimed to provide clearer and stronger evidence for the expected relationships between particular types of groups and particular types of ingroup identification.

Introduction

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 social 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. In my research, I predicted that people would show stronger social identification with large category-based groups (e.g., ethnicity, nationality, religion, gender), stronger communal identification with intimacy groups (e.g., family, close friendships), and stronger interdependent identification with task groups (e.g., juries, study groups).

Studies 1 and 3

Preliminary tests of this group type hypothesis in Studies 1 and 3 provided supportive evidence in regards to communal and interdependent identification. More

specifically, the results showed a significant positive correlation between communal identification and the extent to which people thought about intimacy groups (Studies 1 and 3) and a significant positive correlation between interdependent identification and the extent to which people thought about task groups (Study 3). However, the aims of both Studies 1 and 3 were not primarily focused on investigating the group type hypothesis, and participants in these studies usually identified with at least three social groups simultaneously. In most cases, these groups were of different types, and this situation may have mitigated the display of any type of identification as being stronger than the others.

Study 4

In contrast to Studies 1 and 3, Study 4 was specifically designed to assess the relationships between different types of groups and 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 4 supported Studies' 1 and 3 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 a serious limitation of Study 4 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 loss of statistical power.

The Current Study

The current study aimed to overcome the problems encountered in the previous study by making the research instructions and task 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, I 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 I 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 all previous studies, 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, I made a few alterations to the CSCIIS in order to address previously discussed needs for amendments in the scale. First, the two items measuring global identification (e.g. “I do not identify with my group” and “I identify with the other people in my group”) were excluded from the scale. This decision was based on the factor analyses of the previous four studies. In Study 1, the extracted global identification factor had all characteristics of a method factor (Russell, 2002) with only positively worded items loading on it. The results of Studies 2, 3 and 4 showed that the global identification items did not load on a separate factor and suggested that global identification does not represent a distinct construct. Therefore, it was decided that the above two items should not be included in CSCIIS for further studies.

The second change in CSCIIS was made in order to equalize the number of items in each of its four subscales. In all previous studies, the social, communal, and interdependent identification subscales each had four items measuring these three types of ingroup identification. In contrast, six items were usually associated with the centrality factor. Two of these six items measured the importance of the group and the other four assessed the salience of the group. It was decided to exclude two of the salience items in order to have an equal number of items in all subscales and to make the overall scale slightly shorter and quicker to complete. Following on this decision, the two salience items with the lowest factor loadings across all studies (“I don’t think very much about my group” and “I often think about the fact that I am in my group”) were excluded from the CSCIIS.

Finally, the previously used 5-point Likert-type response scale was replaced with a 7-point scale of the same type in order to investigate the internal reliability of the CSCIIS with different response scales. In summary, this study used a 16-item version of CSCIIS with a 7-point Likert-type response scale that excluded the two global identification items and two of the four salience items associated with the centrality factor in the scale.

Method

Participants

During a two-week period, I collected data from 336 participants. All participants were first year undergraduate psychology students at the University of Newcastle, Australia. 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 I 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

Participants were first year psychology students at the University of Newcastle, Australia and all of them received course credit for their participation in the research. 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 when answering the questionnaire. Example instructions were: “Please indicate how much you agree or disagree with the following statements about the people who are in the same gender group as you (i.e., other men or other women)”, “Please indicate how much you agree or disagree with the following statements about the people who are in the in the PSYC1010 course”, and “Please indicate how much you agree or disagree with the following statements about the people who are in your group of friends”. The study took approximately 20 minutes to complete. Participants responded to all statements using a 7-point Likert-type scale (1 = *Strongly Disagree*, 7 = *Strongly Agree*) and then provided their age and gender.

Results

Factor Analysis

After reverse-scoring negatively-worded items, I conducted a factor analysis following the approach taken in all previous studies. A principal axis factor analysis extracted four factors with eigenvalues larger than one. The scree plot test (Cattell, 1966) revealed that there was a break after the fourth factor (see Figure 11).

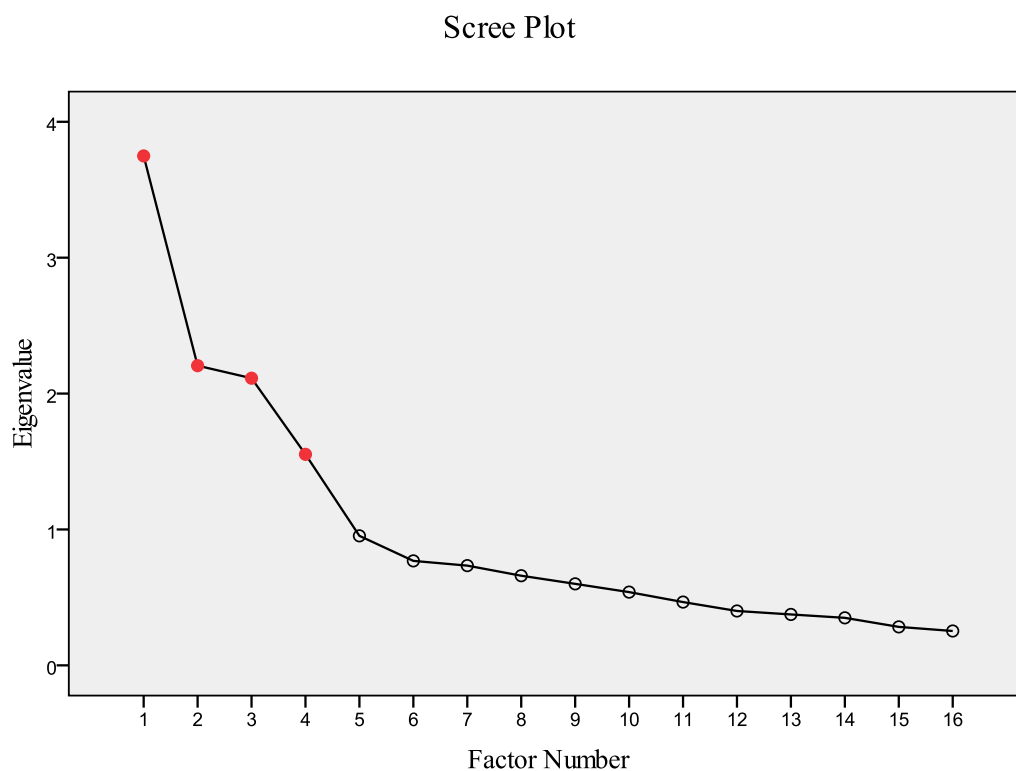


Figure 11. Eigenvalues as a function of factors extracted from the CSCIIS

Consistent with the scree plot, the results of a parallel analysis (Horn, 1965, Watkins, 2000) identified only four factors with eigenvalues larger than the criterion eigenvalues for a randomly generated sample with the same matrix design (Table 14). Hence, it was clear that a four-factor structure represented the best solution. Based on these analyses and a priori theory, I extracted four factors using a promax rotation and item loadings $\geq .30$ as cut-of criteria. These four factors accounted for 60.13% of the total variance.

Table 14

Comparison Between Criterion Eigenvalues From Parallel Analysis and the Eigenvalues From the Current Principal Axis Factor Analysis

Factor Number	Actual Eigenvalue	Criterion Eigenvalue from Parallel Analysis	Outcome
1	3.75	1.40	Retain
2	2.21	1.32	Retain
3	2.11	1.25	Retain
4	1.55	1.19	Retain
5	0.95	1.14	Drop

The first factor accounted for 23.43% of the variance and had an eigenvalue of 3.75. The four social identification items showed the largest loadings on this factor, ranging from .74 to .81. It was clear that this factor represented social identification.

The second factor accounted for 13.78% of the variance and had an eigenvalue of 2.21. All four communal identification items showed the largest loadings on this factor, ranging from .32 to .77. Although one of the interdependent identification items also loaded here with a negative loading value of -.51, it was clear that this factor represented communal identification.

The third factor accounted for 13.21% of the variance and had an eigenvalue of 2.11. All four centrality items (2 salience and 2 importance items) showed the largest positive loadings on this factor, ranging from .40 to .77. It was clear that this factor represents centrality.

The fourth factor accounted for 9.71% of the total variance and had an eigenvalue of 1.55. Three interdependence items showed the largest positive loadings on this factor, ranging from .56 to .83. I identified this factor as interdependent identification. As previously noted, the fourth interdependent identification item ("I

would sacrifice my self-interest for the benefit of the other people in my groups”)

loaded only on the communal identification factor with a negative loading value of -.51.

Therefore, this item was excluded from further analysis. Table 15 shows the factor loading of the items on each of the four identified factors of CSCIIS.

Table 15

Items and Factor Loadings of the 16-Item Version of CSCIIS

Item	Factor			
	1	2	3	4
<i>Social identification</i>				
I am not the same as the other people in my group.*	.81			
I am quite similar to the other people in my group.	.80			
There is very little difference between myself and other members of my group.	.76			
The people in my group are quite different from me.*	.74			
<i>Communal identification</i>				
I have fairly superficial relationships with the other people in my group.*		.77		
I have many close friends in my group.		.71		
I don't care about the people in my group.*		.55		
I empathize with the other people in my group.		.32		
<i>Centrality</i>				
The fact that I am member of my group rarely enters my mind.*			.77	
I often think about what it means to be in my group.			.69	
My group is unimportant to my self-image. *			.51	
My group is important to my sense of who I am.			.40	
<i>Interdependent identification</i>				
When I give something to another person in my group, I generally expect something in return.				.83
I do not expect anything in return for favours I have done for the other people in my group.*				.72
I keep track of benefits I have given to other members of my group.				.56
I would sacrifice my self-interest for the benefit of the other people in my group.*		-.51		

Note. Items with asterisk are reverse scored. The cut-off criteria used for including factor loadings in the table is > .30.

Reliability and Internal Consistency

Cronbach's alphas for all of the CSCIIS subscales were in the range recommended by Clark and Watson (1992) for good or adequate reliability. For the social identification subscale, $\alpha = .86$; for the communal identification subscale, $\alpha = .66$; for the centrality subscale, $\alpha = .69$; and for the interdependent identification subscale, $\alpha = .75$. These results are relatively higher than the CSCIIS reliability results in all previous studies and therefore serve as an evidence for a better measure.

As an indicator of good internal consistency, the average interitem correlations for all subscales were found to be satisfactory. The mean values were .60 for the social identification subscale, .33 for the communal identification subscale, .36 for the centrality subscale, and .50 for the interdependent identification subscale.

Relationships Between Type of Group and Type of Identification

To investigate the impact that thinking about different types of group had on different types of ingroup identification, I conducted two separate series of one-way between-subject ANOVAs. For the first set of analyses, I 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. I refer to this set of analyses as involving *broad group type*. For the second set of analyses, I used all six specific groups without further coding. I refer to this second set of analyses as involving *specific group type*. For both sets of analyses, I 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 I used Fisher's (1935) Least Significant Difference post-hoc tests. Consistent with predictions and Study's 4 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 12 illustrates the mean scores on communal identification for the three different types of groups.

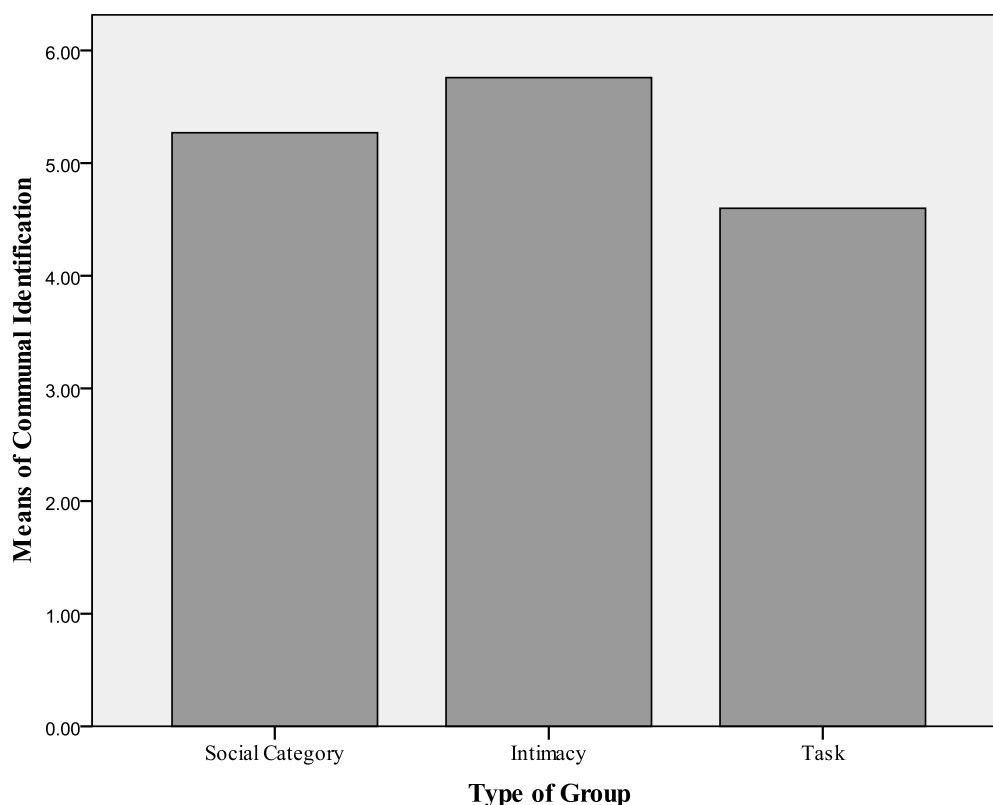


Figure 12. Differences in the mean scores on communal identification as a function of broad group type.

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, I used Games-Howell's post hoc test in my 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 13 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 ($ps > .40$).

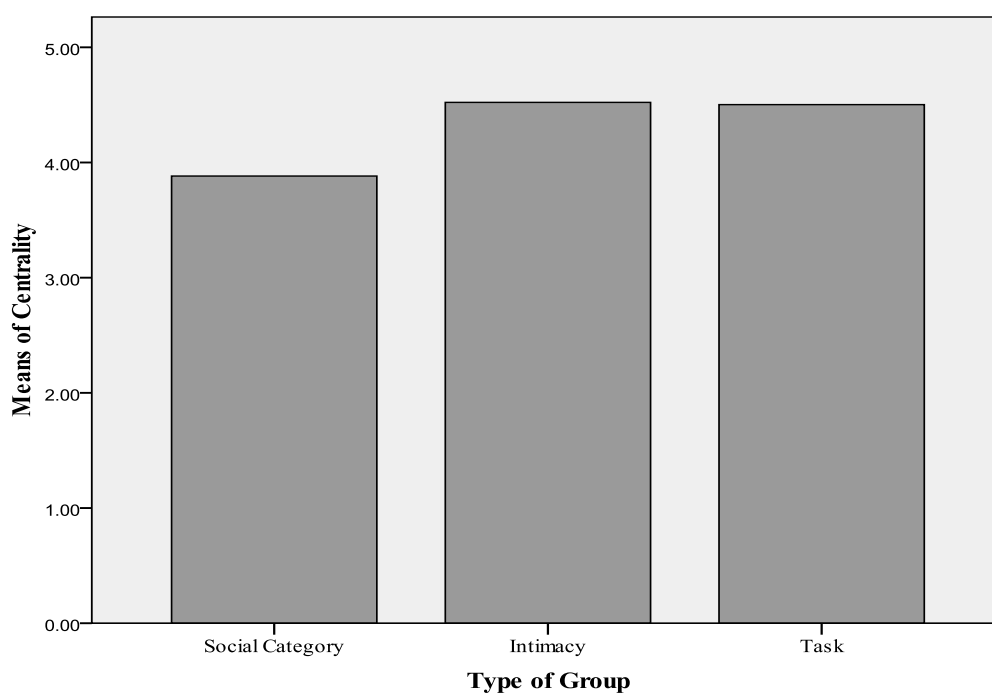


Figure 13. Differences in the mean scores on centrality as a function of broad group type.

Specific Group Type

In a second series of ANOVAs, I 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, I 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, I 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 14 illustrates the mean scores on communal identification for each of the six different groups.

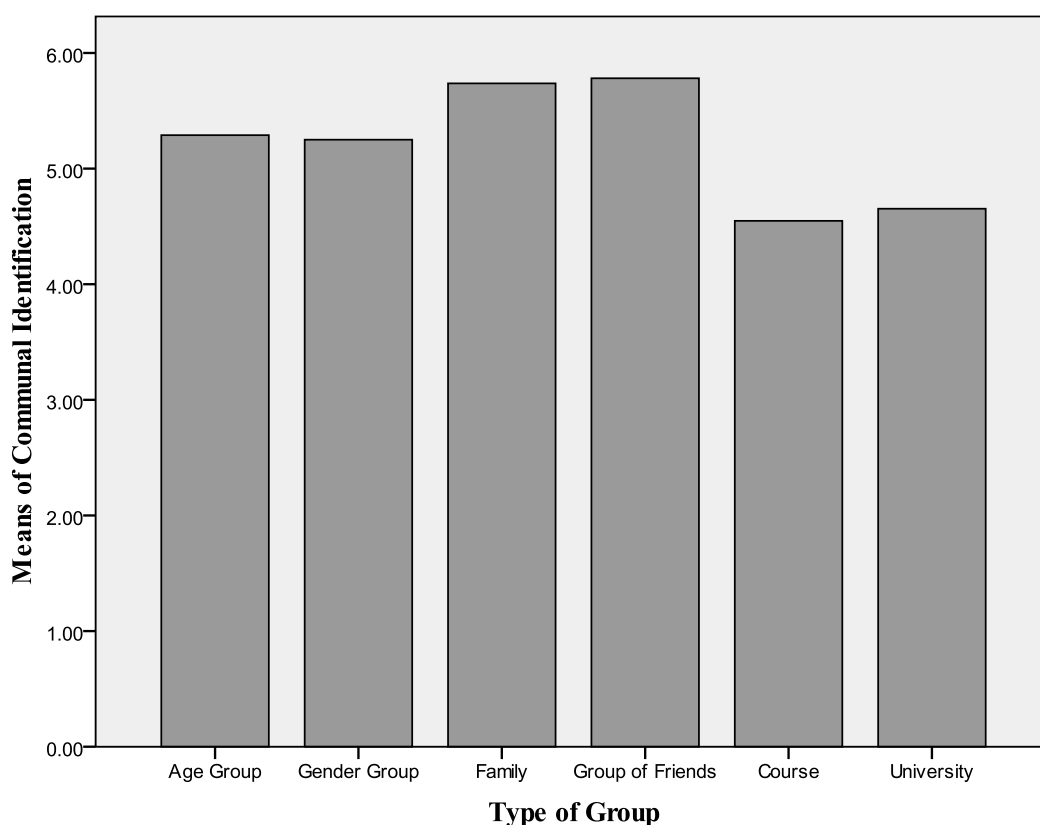


Figure 14. Differences in the mean scores on communal identification as a function of specific group type.

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, I used Games-Howell's post hoc test in my 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 15 illustrates the mean scores on centrality for each of the six different groups.

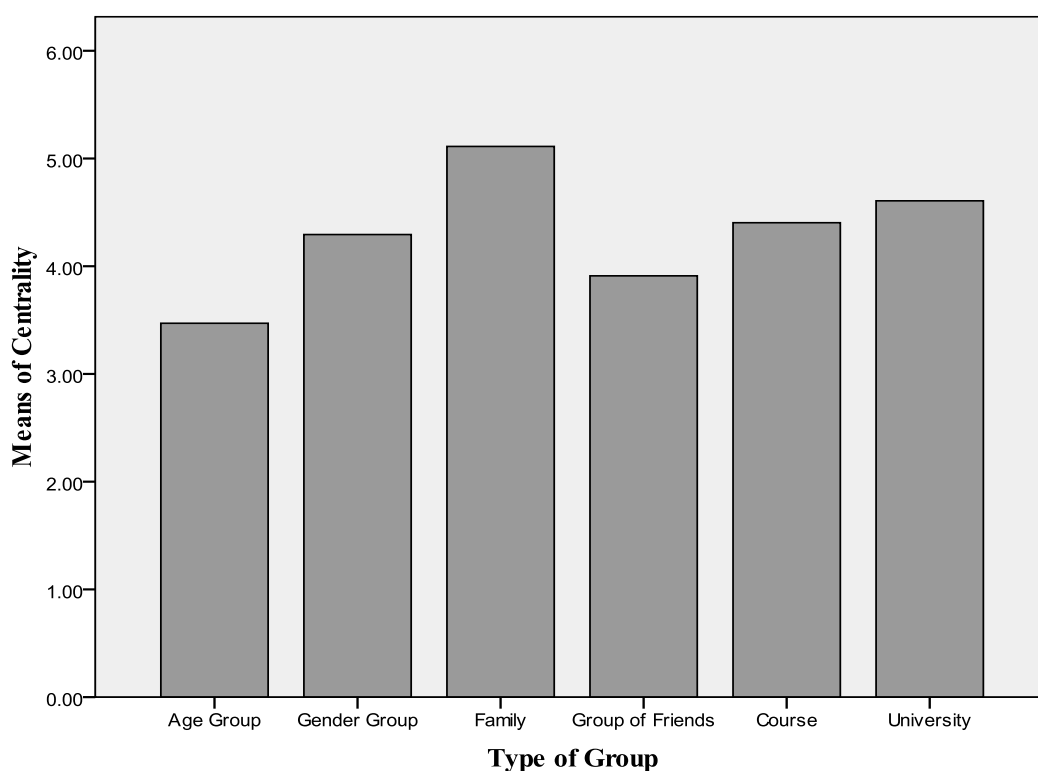


Figure 15. Differences in the mean scores on centrality as a function of specific group type.

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, I 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 I had selected to represent social categories. No other significant differences in social identification as a function of different groups were found ($ps > .10$). Figure 16 illustrates the mean scores on social identification for each of the six different groups.

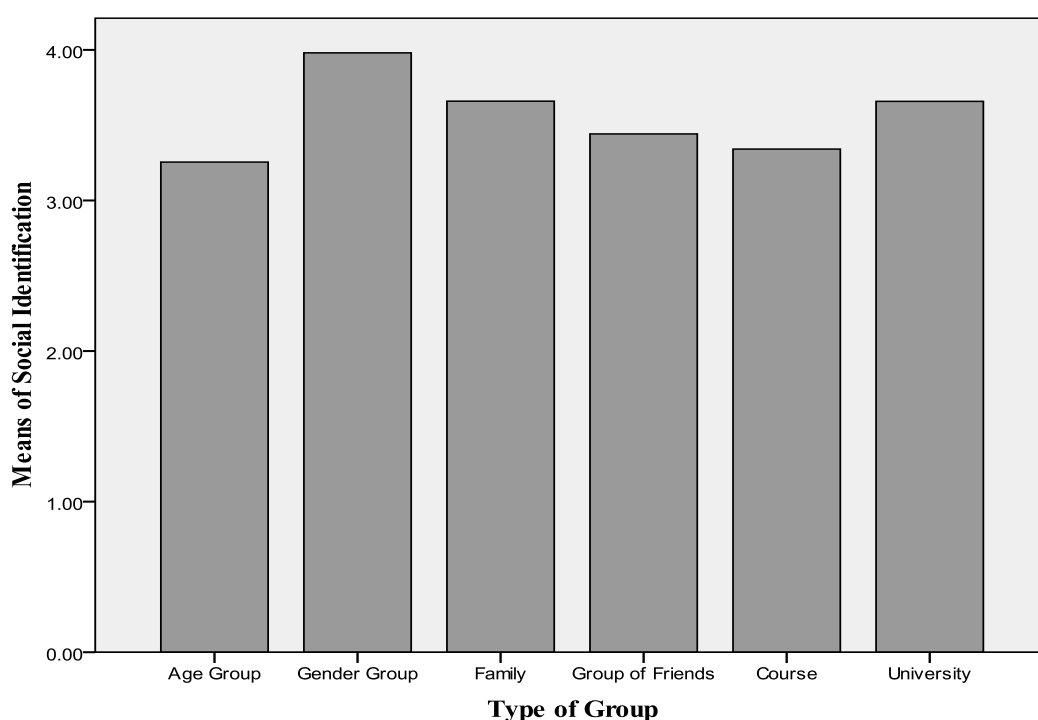


Figure 16. Differences in the mean scores on social identification as a function of specific group type.

Discussion

Factor Structure of the 16-item Version of CSCIIS

Consistent with my previous findings, the factor analysis of the 16-item version of the CSCIIS in this relatively large sample of participants ($N = 317$) showed that centrality, social, communal, and interdependent identification are separate factors. All items measuring each type of ingroup identity loaded on their relevant factor, providing strong supportive evidence for the validity of the distinction between the investigated different types of ingroup identification. The only ambiguity in the results was related to one of the interdependent identification items (“I would sacrifice my self-interest for the benefit of the other people in my group”). This item loaded most strongly and negatively on the communal identification factor and was therefore excluded from further analysis. Notably, a similar pattern was found in Studies 2 and 4 where the same interdependent identification item loaded most strongly and negatively on the communal identification factor (Study 2) or loaded on both the communal and interdependent identification factors (Study 4). Although this result could probably be explained in terms of the significant negative correlation between communal and interdependent identification across all studies (average $r = -.31$), the possibility of rewording of this item should be considered for future versions of the CSCIIS.

The Type of Group 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 4’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. However, the specific group type results in the present study do not allow clear generalization. Therefore, further studies of the effect of different groups on centrality are needed before any conclusions could be made.⁴

Study Limitations

Some limitations of the current research should be considered. Unlike all my earlier studies, this study employs only first year undergraduate psychology students at the University of Newcastle, Australia. The previously used samples of participants from the global internet community are recommended as being more representative of the general population than the above student subject pool commonly used in psychology testing.

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

Finally, I 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, I believed that this specific group is better conceived as a task group. Unlike Lickel et al.'s (2000, 2006) definition that loose

⁴ Consistent with all previous studies, no gender differences in type of identification were found in this sample ($ps > .05$).

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.

Summary

Overall, the results of the current study confirmed my 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 4) was found in this study, the present results are largely consistent with the predictions of my group type hypothesis.

CHAPTER SEVEN: GENERAL DISCUSSION

Overview

In the present chapter, I summarize the major findings of all five studies, draw conclusions about their results and emphasize the contributions that this investigation makes in the area of ingroup identification. I also discuss the limitations of the present research, identify some directions for further investigation and describe the implications of the results for improving our understanding of the way in which people identify with social groups.

The Distinction Between Centrality, Social, Communal, and Interdependent Identification

In five studies, I distinguished between four different types of ingroup identification and investigated their relationships with culture, gender, group status, attachment style, and group type. My review of the relevant literature in the area showed that there is general agreement about five core types of identification with social groups and that there are some specific characteristics and processes that separate these types of ingroup identification from other previously investigated constructs. I examined four of these five types in greater depth in order to clearly define the precise conceptualization of each type of ingroup identification that I used in my research.

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.

I did not investigate some of the other constructs of identification that are primarily linked to the positive and negative feelings about the group and the group membership. As pointed in the first chapter of this work, I consider this evaluative dimension of identification to be related to phenomena that are theoretically distinct from ingroup identification. For example, satisfaction (Leach et al., 2008), ingroup affect (Cameron, 2004), regard (Sellers et al., 1998), attraction to the ingroup (Jackson & Smith, 1999), evaluation (Ashmore et al., 2004), and superiority (Roccas et al., 2008) are more related to collective self-esteem (Luhtanen & Crocker, 1992; Rubin & Hewstone, 1998) than ingroup identification.

Measuring Different Types of Identification

I designed a scale (CSCIIS) that measured four different types of ingroup identification simultaneously. The results of exploratory factor analyses showed that the scale had a relatively stable factor structure across studies and provided evidence for the validity of the investigated model. Centrality, social, communal, and interdependent identification were reliably reproduced in five independent data sets, providing considerable support for the robustness of their distinction across different participant samples and populations.

There were only a few discrepancies in the results across samples, and these were mainly related to centrality. In Studies 2, 3 and 5, the centrality factor was found to unite the salience and the importance items, while in Studies 1 and 4 only the items measuring the salience of the group loaded on the centrality factor. As explained earlier in this work, there is strong theoretical and empirical evidence that centrality is better represented as combining the salience and the importance of the group and the group membership (Cameron, 2004; Leach et al., 2008; Obst & White, 2005). In the view of such evidence then, it is likely that the deviations from the expected structure of centrality in two of the analyses were due to the specific characteristics of the studies in question. For example, Study 1 used the initial 52-item version of CSCIIS. Because of the length of the scale, participants' responses might have suffered from a fatigue effect that could have affected the results of the factor analysis. The number of participants in Study 4 ($N = 81$), on the other hand, was below the generally recommended sample size of 100 or more for conducting a factor analysis. Therefore, the factor analyses findings in this particular study were reported and treated with caution.

Further analyses provided evidence for the validity and reliability of the CSCIIS. The interitem correlations and the results from the reliability tests for each of the four subscales of CSCIIS were more than satisfactory in all studies and were in the range recommendation in the literature (e.g. Clark & Watson, 1992; Dekovic et al., 1991; Holden et al., 1991)

The small-to-medium-sized correlations between the four subscales of CSCIIS and previously established identification measures indicated that centrality, social, communal, and interdependent identification are related but not identical to other constructs of ingroup identification such as ingroup ties, ingroup affect, group self-esteem, and commitment to the group. Consistent with predictions, communal

identification showed the strongest positive correlation with a measure of communal orientation toward relationships and interdependent identification showed the strongest positive correlation with an exchange orientation measure. These results supported the operationalisation of these two types of ingroup identification as separate constructs that are based on different kinds of interpersonal interactions between the group members.

In terms of divergent validity, the overall CSCIIS score and the scores of centrality, social, communal, and interdependent identification did not tend to correlate significantly with measures of global self-esteem (measured with the SES) and social desirability bias (measured with the BIDR). There were only few minor exceptions from this general pattern of results. Global self-esteem showed a moderate positive correlation with the communal identification subscale ($r = .33$), which was in the same range as the correlation between SES and ingroup ties reported by Cameron (2004). There were also significant correlations between CSCIIS's subscales of centrality and social identification with the impression management subscale of the BIDR, as well as a significant correlation between global self-esteem and the salience of the group in Study 1. However, the fact that these three correlations were all small ($r_s \leq .22$) and no other correlations between the CSCIIS's subscales with BIDR and SES were found provides good evidence for the divergent validity of my measure.

Gender Differences in Types of Identification

Following previous research (Baumeister & Sommer, 1997; Cross & Madson, 1997; Gabriel & Gardner, 1999), I hypothesized that gender differences in self-construal would lead to gender differences in two of the four types of ingroup identification that I was investigating. In particular, given the conceptual similarities between my operationalisation of social identification and collective self-construal, I expected that men would show stronger social identification with their groups than would women. In

contrast, given the conceptual similarities between my idea of communal identification and relational self-construal, I expected that women would show stronger communal identification with their groups than would men.

Contrary to predictions, the analyses in four consecutive studies showed no significant differences between the scores of men and women on centrality, social, communal, or interdependent identification. These findings are consistent with Seeley et al.'s (2003) investigation of a similar gender difference hypothesis in relation to Prentice et al.'s (1994) distinction between common bond and common identity. Similar to the current results, Seeley et al. (2003) found that men and women did not differ significantly in their scores on common bond and common identity measures.

I should note here, that the results of Study 1 showed no significant gender differences in participants' collective and relational self-construal as well. However, the two measures that I used to assess these two supposedly distinct constructs correlated very highly with one another ($r = .70, p < .01$), which questioned their divergent validity, at least in this particular sample. The data of this single study was not sufficient enough to reject or support other researchers' suggestions for variations in self-construal between the sexes.

Given the consistency of my null findings across four independent samples in relation to different types of identification, however, it can be concluded that presumable gender differences in self-construal are probably not related to gender differences in the way that people identify with their social groups. In other words, it is possible that men and women have different self-construals which might shape their social relations and interactions with others in relatively different directions. However, these gender differences are likely to occur independently of the investigated types of ingroup identification because being a male or a female did not appear to affect the

extent of centrality, social, communal, or interdependent identification with groups. Such findings highlight the conceptual distinction between self-construal and ingroup identification and provide evidence for divergent validity between these two constructs.

Furthermore, Williams (1984) explored the idea that research on group identification from SIT's perspective could be limited by its predominant focus on identity formation processes which are typically more central for men than for women. However, the lack of gender differences in the four types of ingroup identification investigated in the present research does not support an assumption for divergences in some of the core mechanisms underling males and females identification with social groups.

Cross-Cultural Differences in Types of Identification

Based on previous research of cross-cultural differences in individualism-collectivism (Gardner et al., 1999; Oyserman et al., 2002), I hypothesized that Westerners would show higher levels of communal and interdependent identification with their groups than non-Westerners, while non-Westerners would show higher levels of social identification and centrality than Westerners. In support of my hypotheses, the data of Studies 1, 2, and 3 revealed significant differences in type of identification as a function of culture. However, there were some discrepancies in the results between studies which point toward the need for a careful and, to some extent, cautious interpretation of the cross-cultural findings.

First, consistent with predictions, the results of Studies 1 and 2 showed that Western participants scored significantly higher on communal identification than did non-Western participants. These findings mean that people from Western cultures are more likely to identify with their groups by getting into closer and less instrumental relationships with other group members. Such interpersonal relationships are associated

with the perception of emotional connection and strong bonds with individual members of the social unit and allow group members to retain their sense of individuality in the group.

Second, consistent with expectations, the results of Studies 1 and 2 indicated that non-Western participants had higher levels of centrality than Western participants. In terms of ingroup identification these findings mean that, relative to people from more individualistic Western cultures, people from more collectivist non-Western cultures are prone to think more about their groups and these groups are considered to be more important for non-Westerners' self-definition.

Finally, the results of Studies 1 and 3 supported my prediction that non-Western participants would have higher social identification than Western participants. These results imply that individuals from Western and non-Western societies differ in the extent to which they categorise themselves as interchangeable, average members of their social units. Compared to Westerners, non-Westerners were shown to be more inclined to identify with their groups through the process of depersonalization and to perceive themselves as an embedded part of an ingroup that unites similar individuals.

Unexpectedly, the data from the cross-cultural analysis did not reveal significant differences in interdependent identification between cultures. This null result could probably be explained with the specific interpersonal interactions that differentiate this type of identification from communal identification. Interdependent identification appears as a result of members' mutual instrumental interdependence and, in contrast to communal identification, is largely goal-oriented. Individuals' inputs in the group are primarily focused on gaining benefits from the other members and benefits are given only with the expectation of getting comparable returns. Hence, the strength of such type of identification may be more related to each individual's specific personal

characteristics and aims, rather than to broader, culturally-determined individualism-collectivism predispositions.

Overall, unlike gender, participants' culture was found to predict substantial differences in three of the four investigated types of ingroup identification (i.e., centrality, social, and communal identification). These differences in identification between cultures are probably determined by the differences in collectivism-individualism orientation that describe individuals in Western and non-Western societies. However, the stability of these cross-cultural results across different samples was inconsistent, suggesting that other variables might have also influenced the manifestation of different types of identification in each study. For example, the strength of one or another type of ingroup identification may have depended on the type of group that is most salient at the particular moment of assessment. In support of this assumption, Studies 4 and 5 of the present research revealed that thinking about particular types of group is associated with higher levels of particular types of ingroup identification.

The cross-cultural findings of the current work add to the literature in this area by showing that culturally-determined differences in relational and collective self lead individuals from Western and non-Western cultures to focus their ingroup identification on group members or on the group as a whole respectively. In addition, the present research provides new evidence that support previous investigations of cross-cultural variations in ingroup identification and, at the same time, questions some ambiguous findings in this direction. In particular, my results are consistent with Bond and Hewstone' (1988) findings that non-Westerners (i.e., Chinese) tend to see their group membership as more important for their self-concept and have greater perception of similarity with the others in the group, than do Westerners (i.e. British). In contrast, my

results contradict Yuki's (2003) predictions that Westerners base their identification primarily on the process of depersonalization and the perception of similarity between group members (i.e., social identification), whereas non-Westerners' identification is primarily based on relational bond (ingroup ties) between individual group members (i.e. communal identification). Further research in this area could employ more fine-grained approach toward different cultures and attempt to reveal some specific national and intranational variations in preferred types of ingroup identification.

Group Status and Different Types of Ingroup Identification

Researchers have found that an increase in ingroup identification is a common reaction associated with a membership in a low status groups (Branscombe et al., 1999; Jetten et al., 2001; Turner et al., 1984). However, the above research refers to a global form of group identification and does not consider the specific types of ingroup identification. Filling this empirical gap, I investigated the possibility that only one of the types of ingroup identification that I examined in my work would be affected by the status of the salient group. In particular, I hypothesized that members of a lower status group would show significantly stronger social identification than members of a higher status group of the same type. This prediction is consistent with Simon (1992) and Simon and Brown (1987) evidence that members of minority (low status) groups boost their perception of similarity between ingroup members in order to secure high self-esteem. In addition, given the expected cross-cultural differences in social identification between people from Western and non-Western societies, I anticipated that the effect of group status on social identification would be moderated by culture.

Consistent with these hypotheses, the results of Study 2 revealed that a significant effect of group status occurred in relation to social identification but not in relation to centrality, communal, and interdependent identification. Participants in the

lower status group scored significantly higher on social identification than participants in the higher status group. As predicted, this effect was qualified by culture: Only non-Western participants' social identification differed significantly between the two conditions.

Study 2 adds to the findings of previous research that have examined the link between group status and group identification (e.g., Branscombe et al., 1999; Ellemers 1993; Jetten et al., 2001; Simon, 1992; Simon and Brown, 1987; Turner et al., 1984). Simon and Brown (1987) found that membership in a different status groups could affect individual's ingroup identification in a rather specific direction. Lower status (minority) group members, were shown to perceive greater typicality and similarity with their ingroup and to increase their overall identification with that group. Consistent with Simon and Brown's (1987) results, the present research showed that membership in a low status group enhances the perceived similarities between group members, and consequently, social identification with that group. However, types of ingroup identification that do not involve the perception of similarity between members (such as centrality, communal, and interdependent identification) remain unaffected by differences in the status of the salient group. In addition, the occurring changes in identification as a result of different group status appeared to be affected by the cultural background of the identifying individuals. It can be concluded then, that the relationship between group status and ingroup identification depends on (a) the specific type of ingroup identification that is being investigated and (b) the particular culture of the identifying group members. Future research in this area should consider each of these variables more carefully.

Attachment Style and Different Types of Identification

Following previous research that revealed a fruitful integration of adult attachment theory, group identification, and self-construal (e.g., Crisp et al., 2009; Gabriel et al., 2005; Mikulincer et al., 1998; Smith et al., 1999), I investigated whether variations in attachment style would account for variations in types of ingroup identification. Based on evidence that different prototypic attachment styles are associated with differences in individuals' perception of similarity with others (Mikulincer et al., 1998), I expected that participants' social identification would vary as a function of their attachment style. In addition, based on evidence that avoidant individuals report higher scores than do nonavoidant individuals on relational self-construal measures (Gabriel et al., 2005), I expected that differences in attachment style would account for differences in communal identification.

Consistent with expectations, Study 3's results showed that participants who indicated having a secure attachment style had significantly higher social identification than participants who had a dismissive-avoidant attachment style. Furthermore, as predicted, dismissive-avoidant and fearful-avoidant individuals had significantly lower communal identification than individuals with secure attachment style. Interestingly, the analyses also revealed that participants with secure attachment style showed higher communal identification than participants with preoccupied (anxious/ambivalent) attachment style. This latter result highlights a coherent trend of potential differences in this particular type of ingroup identification and could serve as a new point for further investigation of the attachment style-communal identification relationship.

The above findings suggest that people who are comfortable with emotional closeness, have generally positive views of themselves, and do not worry much about not being accepted by others (i.e., secure individuals) are more likely to identify with

their groups by engaging in close, selfless relationships with the other ingroup members (i.e., communal identification). At the same time, compared to avoidant individuals, these secure individuals are less concerned in losing their sense of individuality in the group and are more likely to see themselves as average, interchangeable members of their social unit (i.e., social identification).

In addition to the results concerning social and communal identification, the data showed that attachment style has an effect on interdependent identification. Participants with a dismissive-avoidant attachment style had significantly higher interdependent identification than participants with a secure attachment style. This result indicates a trend that is explainable in terms of the mechanisms that underlie different types of ingroup identification. Individuals who feel comfortable without close emotional relationships and who highly value their independence (i.e., dismissive-avoidant), generally prefer to identify with their groups on the basis of instrumental, exchange oriented relationships with other group members (i.e., interdependent identification).

Contrary to predictions, however, the data did not reveal significant differences in social identification between participants with preoccupied (anxious/ambivalent) and avoidant attachment styles. In addition, the results did not provide any evidence that preoccupied (anxious/ambivalent) individuals have significantly lower communal identification than avoidant individuals. The lack of support for these predictions may be due to the relatively small number of participants in Study 3 who indicated having a preoccupied attachment style ($N = 19$).

Overall, the findings of the present research confirmed that attachment style plays a significant role in people's identification with social groups and that attachment style acts as a significant predictor of different types of ingroup identification. The results lend credibility to the idea that individual differences in the way that a person

forms his/her relationships with others predict the preferred core manner for identification with social groups. Adding to Crisp et al.'s (2009) work, the current findings suggest that differences in identification as a function of attachment style would occur not only as a result of a relationship threat, but are often predetermined by the existing direct link between one's basic (and most typical) style of attachment and particular types of ingroup identification.

Type of Group and Different Types of Ingroup Identification

Another 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, my 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.

I 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, I 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 a preliminary test of the above hypotheses in Studies 1 and 3 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 in Study 3. However, there were some discrepancies in the findings between Studies 1 and 3. This was probably because both studies 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 4 and 5 was to examine the effects that particular types of groups had on particular types of ingroup identification. Once again, however, the findings differed between studies. The results of Study 4 supported all initial hypotheses regarding social, communal and interdependent identification. Unexpectedly, the results of Study 5 fully supported predictions only in relation to centrality and communal identification and only partial supported predictions concerning social identification.

Overall, the findings of four separate studies confirmed 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 research provided sufficient evidence to conclude

that identifying with an intimacy group would lead to a relatively stronger communal identification with that group (Studies 1, 3,4, and 5). However, the lack of full consistency across studies with regards to centrality, social, and interdependent identification does not allow clear generalization about the constancy of the relationship between specific types of groups and these three types of identification. Nonetheless, my 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 5 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 5 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 et al., 1994). However, to my 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.

Limitations

The present research has some limitations that are associated with sampling, design and methodology. First, four of the five studies used internet based methodology and recruitment strategies. Although, there is evidence that data obtained via the Internet is as reliable as that obtained in the laboratory (Birnbaum, 2004; Krantz & Dalal, 2000), the use of internet sampling may have caused some problems in regards to the applicability of the results to the general population.

Many theories and investigations in the area of social psychology base their findings on data from college students (Sherman, Buddie, Dragan, End, & Finney, 1999). Such groups of participants are relatively homogeneous on variables such as age, education level, and social status. In contrast, internet based research is believed (e.g., Birnbaum, 2004; Skitka & Sargis, 2006) to be able to recruit more heterogeneous and larger samples. Hence, studies that have used the internet as a psychological laboratory should have greater external validity than classical laboratory experiments. However, given the specific recruitment strategies that are used to collect data online, participants recruited from the Internet may also be representatives of a specific and relatively stable population of frequent internet users. Such a group is very likely to differ from the general population along a number of dimensions and characteristics. As Birnbaum (2004) suggested, people recruited to participate in a study via the Internet, are usually “older, better educated, and perhaps more motivated than the usual undergraduate sample tested in the lab” (p. 825). Hence, similar to the use of university students in

psychological testing, the use of internet based samples may have implications for the generalizability of the results.

In addition, researchers interested in the social psychology of the Internet (Bargh & McKenna, 2004; Joinson, 2002; Sassenberg & Kreutz, 2002) agree that people's online behavior is often different to their behavior in the real world. The Internet gives individuals the opportunity to construct new identities, and it offers a variety of new social situations that may not have an equivalent in real society. Lab research (i.e., Study 2), on the other hand, requires participants to attend the session in person and has more option for control, manipulation, and intervention. There is a possibility then, that participants' responses that are collected via the Internet could, to some extent, be affected by the strong perception of complete anonymity or by the easy opportunity to create a different identity, which is not usually possible in individuals' face-to-face daily interactions with different groups and individuals.

Another limitation that needs to be acknowledged is the cross-sectional, correlational design of the current research. Such a design provides information about the extent to which the investigated variables are related, but it does not allow clear conclusions about the casual direction of the detected effects. This cause-effect problem is particularly relevant for the findings that did not come from experimental manipulations. For example, my findings that attachment style predicted type of identification can be interpreted as indicating that participants' attachment style caused participants to identify differently with their groups. However, there is also the possibility that participants' specific type of identification with a particular group may have caused differences in attachment style. Hence, there could be a bidirectional relationship between attachment style and ingroup identification that the present research was not able to explore clearly. Given the developmental precedence of

attachment style, however, the former causal direction is more theoretically plausible than the latter.

In addition, the correlational design of Studies 1 and 3 led to ambiguities about the direction of the relationship between thinking about different types of groups and the strength of different types of ingroup identification. Specifically, it was unclear whether thinking about a particular type of group caused differences in the strength of different types of identification or whether pre-existing dispositions to identify with groups in certain ways caused people to think about particular types of groups. Studies 4 and 5 overcame this interpretational difficulty by employing a research design in which type of group was experimentally manipulated

A further difficulty with the design of some of the studies relates to the lack of appropriate control conditions. For example, the investigation of the type of group-type of identification hypothesis revealed that people who thought about intimacy groups showed significantly higher levels of communal identification than people who thought about task and social category groups. However, it was not possible to determine whether this significant finding is a result of a decrease in participants' communal identification in the task and social category group conditions or an increase in participants' communal identification in the intimacy group condition. Similar interpretational problems apply to the results related to the other investigated types of ingroup identification.

A third limitation of the present research concerns its cross-cultural findings and is associated with the unequal representation of Western and non-Western participants in different samples. From the three studies that investigated the role of culture on different types of ingroup identification, only Study 2 employed a relatively equal numbers of Western and non-Western participants. In contrast, non-Westerners in the

other two studies represented only a small percentage of the total sample (i.e., 9.5% in Study 1 and 19.7% in Study 3). The present research provided evidence that culture plays an important role in individuals' identification with social groups and that cross-cultural differences lead to differences in types of preferred ingroup identification. However, the unequal sampling of Western and non-Western participants in Studies 1 and 3 weakens the power of my culture-related findings and could be accountable for the discrepancies of the cross-cultural results in regards to centrality, social, and interdependent identification across studies.

In addition, my non-Western sample in Study 2 mainly consisted of international students who were living away from their native countries. This situation may have caused them to perceive themselves to be in less close relationships with their family and friends compared to our Western student participants. Given that the salient group in this particular study was a group of friends and family members (intimacy group), there is a potential for a confound between migrant status and culture. Such a confound could not explain cross-cultural differences in communal identification if participants are recruited from their home countries (Heine & Renshaw, 2002; Uleman et al., 2000).

Implications and Directions for Further Research

The present research examined the role of different social psychological variables as predictors for variations in centrality, social, communal and interdependent identification with social group. These qualitatively distinct types of ingroup identification were found to have specific relationships with a number of individual and group-related factors such as culture, attachment style, and type of group in question. A key contribution of the present work has been to analyse and synthesise previous literature dealing with ingroup identification and to underline important points of agreement about some core components of the identification process. Importantly, the

majority of past research in the area has mainly focused on establishing the nature and the number of different dimensions (types) of identification. However, the complexity of the investigated constructs and the use of diverse theoretical perspectives and terminology have often led to conceptual confusion and recurring discrepancies.

In the present research, I have attempted to clarify these matters by offering an integrative theoretical conception of four core types of ingroup identification and demonstrating the value of more systematic approach in the area. My distinction between centrality, social, communal and interdependent identification takes into account the social identity and the interdependence perspectives toward identity (Tajfel, 1978; Turner et al., 1987; Sherif, 1967; Rabbie et al., 1989) and brings into focus the second order issues of how the strength of one or another type of ingroup identification is related to culture, gender, ingroup status, attachment style, and the type of group that is salient. So far, this second-order question has received much less attention (for exceptions see Aharpour & Brown, 2002; Crisp et al., 2009; Kashima & Hitokoto, 2009). Therefore, revealing some important relationships between the above phenomena extends our knowledge of the different factors that shape the way individuals identify with their social groups.

The results of the present work could also contribute to a growing literature that investigates the relationship between ingroup identification, social dominance orientation and well-being. Research in this area has suggested that stronger ingroup identification can reduce the negative effect of stressful conditions that are associated with membership in racially disadvantaged groups (Outten, Schmitt, Garcia, & Branscombe, 2009). In addition, Morrison and Ybarra (2008) demonstrated that higher levels of identification with a racial group could increase individual's social dominance orientation through the perception of realistic threat. However, this previous research

measured only participants' racial (social) identification with a category group and did not examine whether other types of ingroup identification would have the same effects. In contrast, my research shows that people manifest different types of identification with their salient groups and that these types of identification often vary in strength depending on group status, the specific type of salient group, or the cultural background of the identifying individuals. Hence, it could be worth to consider the findings of the present work in order to get a clearer and thorough view of the anticipated relationships between ingroup identification, well-being, and social dominance orientation.

Another implication of the current research lies in the connection of ingroup identification with intergroup behaviour such as discrimination. There is some evidence that ingroup identification operates as an important moderator of social discrimination (e.g., Perreault & Bourhis, 1998) and that identification may serve as a key tool for improving intergroup relations (e.g., Brewer & Miller, 1984). However, discussions of this evidence indicate that the link between identification and discrimination is far from straightforward (e.g., Brown, 2000). One reason for the controversy regarding this link may be that researchers need to distinguish between different types of identification in order to predict different types of discrimination. From the view point of the present research, interdependent identification may be the best predictor of *realistic competition* (Sherif, 1967), because this form of discrimination is based on perceived instrumental interdependency between group members. In contrast, social identification may be the best predictor of *social competition* (Turner, 1975), because this form of discrimination is based on self-stereotyping and depersonalization. Manipulating the extent to which different types of group identification are most salient in the group then, could practically help manage forms of discrimination associated with them.

In addition, further research may wish to examine the predictive validity of different types of identification in regards to processes such as reaction to deviance, reciprocity, and cooperation in the group. Given the specific characteristics that distinguish social, communal, and interdependent identification, higher social identification for example could account for more strong reaction to deviance within the group while higher communal identification should be associated with a tendency for greater cooperation between the group members.⁵ Higher interdependent identification on the other hand should promote reciprocal behavior that could often result in interpersonal tension if the expectation for exchange of comparable return is not met. Such relationships have a significant practical application as they could help for better assessment of the possible reactions to and outcomes from one's membership in a particular group.

The findings of the current research showed that culture, attachment style, group status, and type of group all have a significant effect on the specific way people identify with their social groups. However, most of the studies in this work examined variations in identification as a function of only one of the moderating factors and did not consider possible interactions between them. In contrast, the results of Study 2 indicated that the impact of group status on social identification with an intimacy group is moderated by culture and is different for Westerners and non-Westerners. An important direction for further research in this area is to consider whether and how some of the independent variables investigated in this research interact with one another to jointly predict core types of ingroup identification. For example, three types of groups were found to be associated with stronger manifestation of particular types of ingroup identification.

⁵ I am grateful to Dr Georgina Randsley de Moura for suggesting this possibility.

People's cultural background, on the other hand, also appeared to be responsible for dispositional differences in identification with social groups. Therefore, it would be important to explore whether people from Western and non-Western cultures would differ in their preferred ways for identifying with intimacy, task, and social category groups and whether such a possible interaction between culture and the type of group could account for variations in the simple relationships observed in my research.

Another line for future research relates to the role of some demographic factors in shaping identification processes. There is no doubt that people's social behavior and their relationships with others in society are determined by a complex of individual characteristics and psychological phenomena which interact differently in the specific context of the social situation. There is a high probability then that some basic differences in factors such as age or social status could impact on the individuals' potential for having, or manifesting, different types of identification with the social group they identify. Although the present research did not find any evidence for gender differences in types of identification, there are some other demographic variables that could influence one's perception towards various groups, and consequently, the preferred type of identification. In terms of age for example, recent research by Bennett and Sani (2008) found that even children as young as five years are able to subjectively identify with social category groups by seeing themselves similar to other group members in a salient gender group. Hence, social identification is a phenomenon that is present from the very early stages of human's social development, and its most salient core types could vary with the changes in the individuals' social activities across ages. Presumably, older people would have more social experience in interacting with various social groups than would younger people. Such difference in social experience could result in a different understanding of the meaning of each relevant social unit, and is

likely to affect the way people of different ages identify with their groups. From the view point of the current research and Bennett and Sani's (2008) finding then, it would be interesting to investigate, (a) whether children are capable to other core types of identification such as centrality or interdependent identification, and (b) whether identification with groups of the same type could differ across ages.

Coda

Tajfel (1982) admitted that his definition of social identification was deliberately limited "in order not to enter into endless and often sterile discussions as to what 'is' identity" (p. 2). The results of the present work show that research on group identification could be endless but is certainly not sterile. Given the complexity of the identification phenomenon, the diversity of social groups, and the variety of conditions that shape individuals' group interactions in society, there are always new issues to be discussed and important questions to be answered. The continuing interest and ongoing investigations in this direction have the opportunity to clarify theoretical arguments and to help researchers develop more systematic ideas and clearer conceptions about the mechanisms, the consequences, and the factors affecting group identification.

REFERENCES

- Abrams, D., & Hogg, M. A. (1988). Comments on the motivational status of self-esteem in social identity and intergroup discrimination. *European Journal of Social Psychology*, 18, 317-334.
- Aharpour, S., & Brown, R. (2002). Functions of group identification: An exploratory analysis. *Revue Internationale de Psychologie Sociale*, 15, 157-186.
- Ainsworth, M. S., Blehar, M. C., Waters, E., & Wall, S. (1978). *Patterns of attachment: A psychological study of the strange situation*. Oxford, England: Lawrence Erlbaum.
- Allport, G. W. (1954). *The nature of prejudice*. Reading, MA: Addison-Wesley.
- Asch, S. E. (1952). *Social psychology*. Englewood Cliffs, NJ: Prentice-Hall.
- Ashmore, R. D., Deaux, K., & McLaughlin-Volpe, T. (2004). An organizing framework for collective identity: Articulation and significance of multidimensionality. *Psychological Bulletin*, 130, 80-114.
- 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.
- Bartholomew, K., & Horowitz, L. M. (1991). Attachment styles among young adults: A test of a four-category model. *Journal of Personality and Social Psychology*, 61, 226-244.
- Baumeister, R. F., & Sommer, K. L. (1997). What do men want? Gender differences and two spheres of belongingness: Comment on Cross and Madson (1997). *Psychological Bulletin*, 122, 38-44.

- Bennett, M., & Sani, F. (2008). Children's subjective identification with social groups: A self-stereotyping approach. *Developmental Science*, 11, 69-75.
- Berkowitz, L. & Lutterman, K. G. (1968). The traditional socially responsible personality, *Public Opinion Quarterly*, 32, 169–185.
- Birnbaum, M. H. (2004). Human research and data collection via the Internet. *Annual Review of Psychology*, 55, 803-832.
- Blascovich, J. & Tomaka, J. (1991). Measures of self-esteem. In J. Robinson, P. Shaver, & L. Wrightsman (Eds.), *Measures of personality and social psychological attitudes* (pp. 115-160). San Diego, CA: Academic Press.
- Bond, M. H., & Hewstone, M. (1988). Social identity theory and the perception of intergroup relations in Hong Kong. *International Journal of Intercultural Relations*, 12, 153-170.
- Bond, M. H., & Hewstone, M. (1988). Social identity theory and the perception of intergroup relations in Hong Kong. *International Journal of Intercultural Relations*, 12, 151-170.
- Bouas, K. S., & Arrow, H. (1996). The development of group identity in computer and face-to-face groups with membership change. *Computer Supported Cooperative Work*, 4, 153-178.
- Bourhis, R. Y., Turner, J. C., & Gagnon, A. (1997). Interdependence, social identity, and discrimination: Some empirical considerations. In R. Spears, P. J. Oakes, N. Ellemers, & S. A. Haslam (Eds.), *The social psychology of stereotyping and group life*. Oxford, UK: Blackwell.
- Bowlby, J. (1969). *Attachment and loss: Vol. 1. Attachment*. New York: Basic Books.
- Bowlby, J. (1973). *Attachment and loss: Vol. 2. Separation: Anxiety and anger*. New York: Basic Books.

- Bowlby, J. (1980). *Attachment and loss: Vol. 3. Loss*. New York: Basic Books.
- Branscombe, N. R., Schmitt, M. T., & Harvey, R. D. (1999). Perceiving pervasive discrimination among African Americans: Implications for group identification and well-being. *Journal of Personality and Social Psychology*, 77, 135-149.
- Branscombe, N., Ellemers, N., Spears, R., & Doosje, B. (1999). The context and content of social identity threat. In N. Ellemers, R. Spears, B. Doosje (Eds.), *Social identity: Context, commitment, content* (pp. 35-58). Oxford, England: Blackwell Science.
- Brennan, K. A., Shaver, P. R., & Tobey, A. E. (1991). Attachment styles, gender and parental problem drinking. *Journal of Social and Personal Relationships*, 8, 451-466.
- 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.
- 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.
- Brewer, M. B., & Chen, Y. R. (2007). Where (Who) Are Collectives in Collectivism? Toward Conceptual Clarification of Individualism and Collectivism. *Psychological Review*, 114, 133-151.
- Brewer, M., & Gardner, W. (1996). Who is this "We"? Levels of collective identity and self representations. *Journal of Personality and Social Psychology*, 71, 83-93.
- Brewer, M., & Miller N. (1984). Beyond the contrast hypothesis: theoretical perspectives in desegregation. In M. Brewer, & N. Miller (Eds.), *Groups in conflict: the psychology of desegregation* (pp. 123-146). New York: Academic Press.

- Brown, R. (2000). Social Identity Theory: Past achievements, current problems and future challenges. *European Journal of Social Psychology*, 30, 745-778.
- Brown, R. J., Hinkle, S., Ely, P. G., Fox-Cardamone, D., & et al. (1992). Recognizing group diversity: Individualist-collectivist and autonomous-relational social orientations and their implications for intergroup processes. *British Journal of Social Psychology*, 31, 327-342.
- Brown, R., Condor, S., Mathews, A., Wade, G., & Williams, J. (1986). Explaining intergroup differentiation in an industrial organization. *Journal of Occupational Psychology*, 59, 279-304.
- Cacioppo, J. T., & Petty, R. E. (1981). Lateral asymmetry in the expression of cognition and emotion. *Journal of Experimental Psychology: Human Perception and Performance*, 7, 333-341.
- Cameron, J. (2004). A three-factor model of social identity. *Self & Identity*, 3, 239-262.
- Caporael, L. R. (1997). The evolution of truly social cognition: The core configurations model. *Personality and Social Psychology Review*, 1, 276-298.
- Caporael, L., & Brewer, M. (1995). Hierarchical evolutionary theory: There is an alternative and it's not creationism. *Psychological Inquiry*, 6, 31-34.
- Cattell, R. B. (1966). The scree test for the number of factors. *Multivariate Behavioral Research*, 1, 245-276.
- Clark, L. A., & Watson, D. (1995). Constructing validity: Basic issues in objective scale development. *Psychological Assessment*, 7, 309-319.
- Clark, M. S., & 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.
- Clark, M., Ouellette, R., Powell, M., & Milberg, S. (1987). Recipient's mood, relationship type, and helping. *Journal of Personality & Social Psychology*, 53, 94-103.
- Comrey, A. L. & Lee, H. B. (1992). *A first course in factor analysis* (2nd ed.). Hillsdale, NJ, England: Lawrence Erlbaum.
- Correll, J., & Park, B. (2005). A Model of the Ingroup as a Social Resource. *Personality and Social Psychology Review*, 9, 341-359.
- Crisp, R. J., Farrow, C. V., Rosenthal, H. E., Walsh, J., Blissett, J., & Penn, N. M. (2009). Interpersonal attachment predicts identification with groups. *Journal of Experimental Social Psychology*, 45, 115-122.
- Cross, S. E., & Madson, L. (1997). Elaboration of models of the self: Reply to Baumeister and Sommer (1997) and Martin and Ruble (1997). *Psychological Bulletin*, 122(1), 51-55.
- Cross, S. E., & Madson, L. (1997). Models of the self: Self-construals and gender. *Psychological Bulletin*, 122, 5-37.
- Cross, S., & Madson, L. (1997). Elaboration of models of the self: Reply to Baumeister and Sommer (1997) and Martin and Ruble (1997). *Psychological Bulletin*, 122, 51-55.
- Cross, S., Bacon, P., & Morris, M. (2000). The relational-interdependent self-construal and relationships. *Journal of Personality and Social Psychology*, 78, 791-808.
- Deaux, K., Reid, A., Mizrahi, K., & Ethier, K. A. (1995). Parameters of social identity. *Journal of Personality and Social Psychology*, 68, 280-291.

- Dekovic, M., Janssens, J. M., & Gerris, J. R. (1991). Factor structure and construct validity of the Block Child Rearing Practices Report (CRPR). *Psychological Assessment: A Journal of Consulting and Clinical Psychology*, 3, 182-187.
- Dimmock, J., Grove, J., Eklund, R. (2005). Reconceptualizing Team Identification: New Dimensions and Their Relationship to Intergroup Bias. *Group Dynamics: Theory, Research, and Practice*, 9, 75-86.
- Ellemers, N. (1993). The influence on socio-structural variables on identity management strategies. In W. Stroebe & M. Hewstone (Eds.), *European review of social psychology* (vol. 4, pp. 27-58). New York: Wiley.
- Ellemers, N., Kortekaas, P., & Ouwerkerk, J. (1999). Self-categorisation, commitment to the group and group self esteem as related but distinct aspects of social identity. *European Journal of Social Psychology*, 29, 371-389.
- Epstein, J., & Klinkenberg, W. (2002). Collecting data via the Internet: The development and deployment of a Web-based survey. *Journal of Technology in Human Services*, 19, 33-47.
- Feeney, J., & Noller, P. (1996). *Adult attachment*. Thousand Oaks, CA, US: Sage Publications, Inc.
- Fisher, R. (1935). *The Design of Experiments*. London: Oliver & Boyd.
- 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.
- Fraley, C., & Shaver, P. (2000). Adult romantic attachment: Theoretical developments, emerging controversies, and unanswered questions. *Review of General Psychology*, 4, 132-154.

- Gabriel, S., & Gardner, W. L. (1999). Are there "his" and "hers" types of interdependence? The implications of gender differences in collective versus relational interdependence for affect, behavior, and cognition. *Journal of Personality and Social Psychology*, 77, 642-655.
- Gabriel, S., Carvallo, M., Dean, K., Tippin, B., & Renaud, J. (2005). How I See Me Depends on How I See We: The Role of Attachment Style in Social Comparison. *Personality and Social Psychology Bulletin*, 31, 1561-1572.
- Gardner, W. L., Gabriel, S., & Lee, A. Y. (1999). "I" value freedom, but "we" value relationships: Self-construal priming mirrors cultural differences in judgment. *Psychological Science*, 10, 321-326.
- Gorsuch, R. L. (1983). *Factor analysis* (2nd ed.). Hillsdale, NJ: Laurens Erlbaum.
- Gurin, P., & Markus, H. (1989). Cognitive consequences of gender identity. In S. Skevington & D. Baker (Eds.), *The social identity of women* (pp. 152-172). London: Sage.
- Hamilton, D. L., & Sherman, S. J. (1996). Perceiving persons and groups. *Psychological Review*, 103, 336-355.
- Haslam, S. A., Postmes, T., & Ellemers, N. (2003). More than a Metaphor: Organizational Identity Makes Organizational Life Possible. *British Journal of Management*, 14, 357-369.
- Hazan, C., & Shaver, P. (1987). Romantic love conceptualized as an attachment process. *Journal of Personality & Social Psychology*, 52, 511-524.
- Heine, S. J., & Renshaw, K. (2002). Interjudge agreement, self-enhancement, and liking: Cross-cultural divergences. *Personality and Social Psychology Bulletin*, 28, 578-587.

- Heine, S. J., Kitayama, S., Lehman, D. R., Takata, T., Ide, E., Leung, C., et al. (2001). Divergent consequences of success and failure in Japan and North America: An investigation of self-improving motivations and malleable selves. *Journal of Personality and Social Psychology*, 81, 599-615.
- Heine, S. J., Lehman, D. R., Markus, H. R., & Kitayama, S. (1999). Is there a universal need for positive self-regard? *Psychological Review*, 106, 766-794.
- Heine, S., & Lehman, D. (1997). The cultural construction of self-enhancement: An examination of group-serving biases. *Journal of Personality and Social Psychology*, 72, 1268-1283.
- Henry, K. B., Arrow, H., & Carini, B. (1999). A tripartite model of group identification: Theory and measurement. *Small Group Research*, 30, 558-581.
- Hinkle, S., Taylor, L., Fox-Cardamone, D., & Crook, K. (1989). Intragroup identification and intergroup differentiation: A multicomponent approach. *British Journal of Social Psychology*, 28, 305-317.
- Hogg, M. A., & Hains, S. C. (1996). Intergroup relations and group solidarity: Effects of group identification and social beliefs on depersonalized attraction. *Journal of Personality and Social Psychology*, 70, 295-309.
- Hogg, M. A., & Moreland, R. L. (1993). Studying social processes in small groups. *British Journal of Social Psychology*, 32, 107-110.
- Hogg, M., & Abrams, D. (1990). Social motivation, self-esteem, and social identity. In D. Abrams & M. A. Hogg (Eds.), *Social identity theory. Constructive and critical advances* (pp. 28-47). London: Harvester Wheatsheaf.
- Holden, R. R., Fekken, G., & Cotton, D. H. (1991). Assessing psychopathology using structured test-item response latencies. *Psychological Assessment: A Journal of Consulting and Clinical Psychology*, 3, 111-118.

- Horn, J. L. (1965). A rationale and test for the number of factors in factor analysis. *Psychometrika*, 30, 179-185.
- Hornsey, M. J., & Hogg, M. A. (2000). Subgroup relations: A comparison of mutual intergroup differentiation and common ingroup identity models of prejudice reduction. *Personality and Social Psychology Bulletin*, 26, 242-256.
- Hughes, T. G., & Snell, W. E. (1990). Communal and exchange approaches to sexual relations. *Annals of Sex Research*, 3, 149-163.
- Jackson, J. (2002). Intergroup Attitudes as a Function of Different Dimensions of Group Identification and Perceived Intergroup Conflict. *Self and Identity*, 1, 11-33.
- Jackson, J., & Smith, E. (1999). Conceptualizing social identity: A new framework and evidence for the impact of different dimensions. *Personality and Social Psychology Bulletin*, 25, 120-135.
- Jacobson, L. I., Kellogg, R. W., Cauce, A., & Slavin, R. S. (1977). A multidimensional social desirability inventory. *Bulletin of the Psychonomic Society*, 9, 109-110.
- Jetten, J., Branscombe, N. R., Schmitt, M. T., & Spears, R. (2001). Rebels with a cause: Group identification as a response to perceived discrimination from the mainstream. *Personality and Social Psychology Bulletin*, 27, 1204-1213.
- Jetten, J., Postmes, T., & McAuliffe, B. J. (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.
- Jetten, J., Spears, R., & Manstead, A. (1997). Distinctiveness threat and prototypicality: Combined effects on intergroup discrimination and collective self-esteem. *European Journal of Social Psychology*, 27, 635-657.

- 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.
- Joinson, A. (2003). *Understanding the psychology of Internet behaviour: Virtual worlds, real lives*. New York: Palgrave Macmillan.
- Karasawa, M. (1991). Towards an assessment of social identity: The structure of group identification and its effects on in-group evaluations. *British Journal of Social Psychology*, 30, 293-307.
- Kashima, E., & Hardie, E. (2000). Self-typicality and group identification: evidence for their separateness. *Group Processes & Intergroup Relations*, 3, 97-110.
- Kashima, E., & Hitokoto, H. (2009). Cultural similarities and differences in social identification in Japan and Australia. *Asian Journal of Social Psychology*, 12, 71-81.
- Kashima, Y., Yamaguchi, S., Kim, U., Choi, S., Gelfand, M. J., & Yuki, M. (1995). Culture, gender, and self: A perspective from individualism-collectivism research. *Journal of Personality and Social Psychology*, 69, 925-937.
- Kelly, C. (1988). Intergroup differentiation in a political context. *British Journal of Social Psychology*, 27, 319-332.
- Kline, P. (1998). *The new psychometrics: Science, psychology and measurement*. Florence, KY, US: Taylor & Frances/Routledge.
- Krantz, J., & Dalal, R. (2000). In Birnbaum, M. (Ed.). *Psychological experiments on the Internet*. (pp. 35-60). San Diego, CA: Academic Press.
- Leach, C. W., 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.
- Leite, W. L., & Beretvas, S. (2005). Validation of Scores on the Marlowe-Crowne Social Desirability Scale and the Balanced Inventory of Desirable Responding. *Educational and Psychological Measurement*, 65, 140-154.
- Lewin, K. (1948). Resolving social conflicts. New York: Harper & Row.
- Lickel, B., Hamilton, D. L., Wierzchowska, 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.
- Luhtanen, R., & Crocker, J. (1992). A Collective Self-esteem Scale: Self-evaluation of one's social identity. *Personality & Social Psychology Bulletin*, 18, 302-318.
- Mackie, D. M., & Smith, E. R. (1998). Intergroup relations: Insights from a theoretically integrative approach. *Psychological Review*, 105, 499-529.
- Main, M., & Cassidy, J. (1988). Categories of response to reunion with the parent at age 6: Predictable from infant attachment classifications and stable over a 1-month period. *Developmental Psychology*, 24, 415-426.
- Markus, H., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review*, 98, 224-253.
- Mehrabian, A., & Epstein, N. (1972). A measure of emotional empathy. *Journal of Personality*, 40(4), 525-543.
- Meyer, J. P., & Allen, N. J. (1997). *Commitment in the workplace: Theory, research, and application*. Thousand Oaks, CA: Sage Publications.

- Mikulincer, M., Orbach, I., & Iavnieli, D. (1998). Adult attachment style and affect regulation: Strategic variations in subjective self-other similarity. *Journal of Personality and Social Psychology*, 75, 436-448.
- Miller, N., & Brewer, M. (1986). Social categorization theory and team learning procedures. In R. Feldman (Ed), *The social psychology of education: Current research and theory* (pp. 172-198). New York: Cambridge University Press.
- 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.
- Morrison, K. R., & Ybarra, O. (2008). The effects of realistic threat and group identification on social dominance orientation. *Journal of Experimental Social Psychology*, 44, 156-163.
- Mowday, R. T. (1998). Reflections on the study and relevance of organizational commitment. *Human Resource Management Review*, 8, 387-401.
- Mullin, B. A., & Hogg, M. A. (1998). Dimensions of subjective uncertainty in social identification and minimal intergroup discrimination. *British Journal of Social Psychology*, 37, 345-365.
- Mummendey, A., Otten, S., Berger, U., & Kessler, T. (2000). Positive-negative asymmetry in social discrimination: Valence of evaluation and salience of categorization. *Personality and Social Psychology Bulletin*, 26, 1258-1270.
- Mundfrom, D. J., Shaw, D. G., & Ke, T. L. (2005). Minimum Sample Size Recommendations for Conducting Factor Analyses. *International Journal of Testing*, 5, 159-168.
- Oakes, P., Haslam, S. A., & Turner, J. C. (1994). *Stereotyping and social reality*. Malden: Blackwell Publishing.

- Obst, P., & White, K. (2005). Three-dimensional strength of identification across group memberships: A confirmatory factor analysis. *Self and Identity*, 4, 69-80.
- Outten, R., Schmitt, M., Garcia, D., & Branscombe, N. (2009). Coping options: Missing links between minority group identification and psychological well-being. *Applied Psychology: An International Review*, 58, 146-170.
- Ouwerkerk, J. W., de Gilder, D., & de Vries, N. K. (2000). When the going gets tough, the tough get going: Social identification and individual effort in intergroup competition. *Personality and Social Psychology Bulletin*, 26, 1550-1559.
- Oyserman, D., Coon, H., & Kemmelmeier, M. (2000) Rethinking individualism and collectivism: Evaluation of theoretical assumptions and meta-analyses. *Psychological Bulletin*, 128, 3-72.
- Paulhus, D. L. (1984). Two-component models of socially desirable responding. *Journal of Personality and Social Psychology*, 46, 598-609.
- Paulhus, D.L. (1998). *The Paulhus Deception Scales: BIDR Version 7*. Toronto/Buffalo: Multi-Health Systems.
- Perreault, S., & Bourhis, R. Y. (1999). Ethnocentrism, social identification, and discrimination. *Personality & Social Psychology Bulletin*, 25, 92-103.
- Petty, R. E., & Cacioppo, J. T. (1977). Forewarning, cognitive responding, and resistance to persuasion. *Journal of Personality and Social Psychology*, 35(9), 645-655.
- 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.
- Rabbie, J., Schot, J., & Visser, L. (1989). Social identity theory: A conceptual and empirical critique from the perspective of a Behavioural Interaction Model. *European Journal of Social Psychology*, 19, 171-202.
- Riordan, C. M., & Weatherly, E. W. (1999). Defining and measuring employees' identification with their work groups. *Educational and Psychological Measurement*, 59, 310-324.
- 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.
- Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton, NJ: Princeton University Press.
- Rubin, M., & Hewstone, M. (1998). Social identity theory's self-esteem hypothesis: A review and some suggestions for clarification. *Personality and Social Psychology Review*, 2, 40-62.
- Russell, D. W. (2002). In search of underlying dimensions: The use (and abuse) of factor analysis in Personality and Social Psychology Bulletin. *Personality and Social Psychology Bulletin*, 28, 1629-1646.
- Sachdev, I., Bourhis, R. (1987). Status differentials and intergroup behaviour. *European Journal of Social Psychology*, 17, 277-293.
- Sassenberg, K., & Kreutz, S. (2002). In B. Batanic, U. Reips, M. Bosnjak, (Eds.), *Online social sciences* (pp. 213-227). Ashland, OH, US: Hogrefe & Huber Publishers.

- Schatz, R. T., Staub, E., & Lavine, H. (1999). On the varieties of national attachment: Blind versus constructive patriotism. *Political Psychology*, 20, 151-174.
- Scheepers, D., Spears, R., Doosje, B., & Manstead, A. (2002). Integrating identity and instrumental approaches to intergroup differentiation: Different contexts, different motives. *Personality and Social Psychology Bulletin*, 28, 1455-1467.
- Scheepers, D., Spears, R., Doosje, B., & Manstead, A. S. (2002). Integrating identity and instrumental approaches to intergroup differentiation: Different contexts, different motives. *Personality and Social Psychology Bulletin*, 28, 1455-1467.
- Seeley, E. A., Gardner, W. L., Pennington, G., & Gabriel, S. (2003). Circle of friends or members of a group? Sex differences in relational and collective attachment to groups. *Group Processes & Intergroup Relations*, 6, 251-263.
- Sellers, R. M., Smith, M. A., Shelton, J., Rowley, S. A., & Chavous, T. M. (1998). Multidimensional model of racial identity: A reconceptualization of African American racial identity. *Personality and Social Psychology Review*, 2, 18-39.
- Sherif, M. (1936). *The psychology of social norms*. New York: Harper.
- Sherif, M. (1967). *Group conflict and co-operation: Their social psychology*. London: Routledge & Kegan Paul.
- Sherman, R. C., Buddie, A. M., Dragan, K. L., End, C. M., & Finney, L. J. (1999). Twenty years of PSPB: Trends in content, design, and analysis. *Personality and Social Psychology Bulletin*, 25, 177-187.
- Simon, B. (1992). The perception of ingroup and outgroup homogeneity: Reintroducing the intergroup context. In W. Stroebe & M. Hewstone (Eds.), *European review of social psychology* (Vol. 3. pp. 1-30). Oxford: Wiley & Sons.
- Simon, B., & Brown, R. (1987). Perceived intragroup homogeneity in minority-majority contexts. *Journal of Personality and Social Psychology*, 53, 703-711.

- Skitka, L. J., & Sargis, E. G. (2006). The Internet as psychological laboratory. *Annual Review of Psychology*, 57, 529-555.
- Smith, E. R., Murphy, J., & Coats, S. (1999). Attachment to groups: Theory and management. *Journal of Personality and Social Psychology*, 77, 94-110.
- Snyder, C., & Fromkin, H. L. (1977). Abnormality as a positive characteristic: The development and validation of a scale measuring need for uniqueness. *Journal of Abnormal Psychology*, 86(5), 518-527.
- Spears, R., Doosje, B., & Ellemers, N. (1999). Commitment and the context of social perception. In N. Ellemers, R. Spears, & B. Doosje (Eds.), *Social identity: Context, commitment, content* (pp. 59-83). Oxford: Blackwell.
- Spears, R., Doosje, B., & Ellemers, N. (1997). Self-stereotyping in the face of threats to group status and distinctiveness: the role of group identification. *Personality and Social Psychology Bulletin*, 23, 538-553.
- Stroebe, K., Lodewijkx, H. F., & Spears, R. (2005). Do Unto Others as They Do Unto You: Reciprocity and Social Identification as Determinants of Ingroup Favoritism. *Personality and Social Psychology Bulletin*, 31, 841-845.
- Stroebe, K., Lodewijkx, H., & Spears, R. (2005). Do Unto Others as They Do Unto You: Reciprocity and Social Identification as Determinants of Ingroup Favoritism. *Personality and Social Psychology Bulletin*, 31, 831-845.
- Tajfel, H. (1978). *Differentiation between social groups: Studies in the social psychology of intergroup relations*. London: Academic Press.
- Tajfel, H. (1982). Social psychology of intergroup relations. *Annual Review of Psychology*, 33, 1-39.

- Tajfel, H., & Turner, J. (1979). An integrative theory of intergroup conflict. In W. Austin & S. Worchel (Eds.), *The social psychology of intergroup relations* (pp. 33-47). Monterey, CA: Brooks/Cole.
- ter Doest, L., Semin, G. R., & Sherman, S. J. (2002). Linguistic context and social perception: Does stimulus abstraction moderate processing style? *Journal of Language and Social Psychology*, 21, 195-229.
- Tesser, A. (1999). Toward a self-evaluation maintenance model of social behavior. In R. Baumeister (Ed.), *The self in social psychology* (pp. 446-460). New York: Psychology Press.
- Trafimow, D., Triandis, H. C., & Goto, S. G. (1991). Some tests of the distinction between the private self and the collective self. *Journal of Personality and Social Psychology*, 60, 649-655.
- Triandis, H. C. (1995). *Individualism & collectivism*. Boulder, CO, US: Westview Press.
- Triandis, H. C., & Gelfand, M. J. (1998). Converging measurement of horizontal and vertical individualism and collectivism. *Journal of Personality and Social Psychology*, 74, 118-128.
- Triandis, H., McCusker, C., & Hui, H. (1990). Multimethod probes of individualism and collectivism. *Journal of Personality and Social Psychology*, 59, 1006-1020.
- Turner, J. C. (1975). Social comparison and social identity: Some prospects for intergroup behaviour. *European journal of social psychology*, 5, 149-178.
- Turner, J. C. (1978). Social categorization and social discrimination in the minimal group paradigm. In H. Tajfel (Ed.), *Differentiation between social groups: Studies in the social psychology of intergroup relations*. London: Academic Press.

- Turner, J. C., & Bourhis, R. Y. (1996). Social identity, interdependence and the social group: A reply to Rabbie et al. In W. P. Robinson (Ed.), *Social groups and identities: Developing the legacy of Henri Tajfel* (pp. 25-63). Oxford: Butterworth-Heinemann.
- Turner, J. C., & Reynolds, K. J. (2004). In M. Brewer, M. Hewstone (Eds.), *Self and social identity* (pp. 259-277). Malden: Blackwell Publishing.
- Turner, J. C., Hogg, M. A., Oakes, P. J., Reicher, S. D., & Wetherell, M. (1987). *Rediscovering the social group: A self-categorization theory*. Oxford: Blackwell.
- Turner, J., Hogg, M., Turner, P., & Smith, P. (1984). Failure and defeat as determinants of group cohesiveness. *British Journal of Social Psychology*, 23, 97-111.
- Uleman, J. S., Rhee, E., Bardoliwalla, N., Semin, G., & Toyama, M. (2000). The relational self: Closeness to ingroups depends on who they are, culture, and the type of closeness. *Asian Journal of Social Psychology*, 3, 1-17.
- Watkins, M. W. (2000). *Monte Carlo PCA for parallel analysis [computer software]*. State College, PA: Ed & Psych Associates. Retrieved from <http://www.allenandunwin.com/spss2/further.htm>
- Wells, G. L., & Windschitl, P. D. (1999). Stimulus sampling and social psychological experimentation. *Personality and Social Psychology Bulletin*, 25, 1115-1125.
- Williams, J. (1984). Gender and intergroup behaviour: Towards an integration. *British Journal of Social Psychology*, 23, 311-316.
- 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.

Wood, J. M., Tataryn, D. J., & Gorsuch, R. L. (1996). Effects of under- and overextraction on principal axis factor analysis with varimax rotation. *Psychological Methods, 1*, 354-365.

Yuki, M. (2003). Intergroup comparison versus intragroup relationships: A cross-cultural examination of social identity theory in North American and East Asian cultural contexts. *Social Psychology Quarterly, 66*, 166-183.

APPENDIXES

Appendix A

The Initial 52-Item Version of CSCIIS Used in Study 1

Importance

1. Being a member of my group is one of my most important defining features.
2. My group is an important part of my self-image.
3. My group is important to my sense of who I am.
4. My group is not important to me.*
5. My group does not form a significant part of my identity.*
6. My group has very little to do with how I feel about myself.*

Salience

7. I often think about what it means to be in my group.
8. I often think about the fact that I am in my group.
9. When I think of myself, I often think of my group.
10. I am not usually conscious of the fact that I am in my group.*
11. I don't think very much about my group.*
12. The fact that I am member of my group rarely enters my mind.*

Social Identification

13. I am an average member of my group.
14. I am a good representative of my group.
15. I am quite similar to the other people in my group.
16. I am more or less identical to the other people in my group.
17. I fit in very well with the other members of my group.
18. There is very little difference between myself and other members of my group.
19. I am not very similar to the other members of my group.*
20. I don't have a lot in common with the other members of my group.*
21. The people in my group are quite different from me. *
22. I am not a typical member of my group.*
23. I am not like other members of my group.*
24. I am not the same as the other people in my group.*

Communal Identification

25. I have close relationships with the other people in my group.
26. If someone in my group did well, it would make me feel good.
27. I have an emotional bond with the people in my group.
28. I would go out of my way to help another person in my group.
29. The other people in my group are like family to me.
30. When making a decision, I take my group members' feelings into account.
31. I can't really empathize with the other people in my group.*
32. I have fairly superficial relationships with the other people in my group.*
33. I am not especially sensitive to the feelings of the other people in my group.*
34. I don't have many close friends in my group.*
35. I don't care about the people in my group.*

36. The success or failure of people in my group doesn't affect how I feel about myself.*

Interdependent Identification

37. I rely a lot on the other people in my group.

38. When I give something to another person in my group, I generally expect something in return.

39. I want the people in my group to be responsive to my needs.

40. The other people in my group do a lot for me.

41. I act towards the other people in my group in a purely rational way.

42. I want the other members of my group to help me when I need help.

43. I can do without the other people in my group.*

44. I don't need the other people in my group.*

45. I would sacrifice my self-interest for the benefit of the other people in my group.*

46. I don't bother to keep track of benefits I have given to other members of my group.*

47. I do not expect anything in return for favours I have done for the other people in my group.*

48. It is important for things to be shared fairly among the members of my group.*

Global Identification

49. I identify with my group.

50. I identify with the other people in my group.

51. I don't identify with my group.*

52. I don't identify with the other members of my group.*

NOTE. Items with asterisk are reverse scored.

Appendix B

Western/non-Western Classification Criteria	
<i>Western (Individualistic) Countries</i>	<i>Non-Western (Collectivist) Countries</i>
- English-speaking countries: USA Australia Canada New Zealand UK South Africa - Most European countries: Germany Norway Serbia Bulgaria Romania Sweden Italy Turkey - Some South/Latin American Countries: Puerto Rico	- Most Asian Countries: Japan Korea China (including Honk Kong) Singapore Taiwan Vietnam India Indonesia The Philippines Sri Lanka Malaysia Bangladesh - Most African Countries: Ethiopia Tanzania Kenya Zimbabwe Sierra Leone Belize - All Middle Eastern Countries (excluding Israel): Lebanon Iran - Most South/Latin American Countries: Colombia - Some European Countries Poland Spain Russia - Pacific Countries Samoa PNG

NOTE: The list of countries includes all countries of origin of participants in Studies 1, 2, and 3. Classification is based on previous evidence for cross-cultural differences in individualism-collectivism orientation (for a meta-analytic review, see Oyserman et al., 2002).