Social Cognition, Social Identity, and Intergroup Relations

A FESTSCHRIFT IN HONOR OF
MARILYNN B. BREWER

Roderick M. Kramer
Geoffrey J. Leonardelli
Robert W. Livingston

EDITORS

Psychology Press

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CONTRIBUTORS

**Marilynn B. Brewer,
Professor Emeritus**
Department of Psychology
Ohio State University
Columbus, Ohio

Linnda R. Caporael
Department of Science &
    Technological Studies
Rensselaer Polytechnic
    Institute
Troy, New York

Sean Carroll
Monash University
Melbourne, Australia

Emanuele Castano
Department of Psychology
New School for Social Research
New York, New York

Jacqueline M. Chen
Department of Psychology
University of California
Santa Barbara, California

Ya-Ru Chen
Johnson School of Management
Cornell University
Ithaca, New York

William D. Crano
Department of Psychology
Claremont Graduate University
Claremont, California

Winette M. George
School of Psychological and
    Behavioral Sciences
University of West Florida
Pensacola, Florida

Karen Gonsalkorale
School of Psychology
University of Sydney
Sydney, New South Wales,
    Australia

David L. Hamilton
Department of Psychology
University of California
Santa Barbara, California

Vanessa Hemovich
Department of Psychology
Claremont Graduate University
Claremont, California

Yanine D. Hess
Department of Psychology
University of California
Davis, California

Miles Hewstone
Department of Experimental
   Psychology
University of Oxford
Oxford, United Kingdom

John E. Joseph
Fuqua School of Business
Duke University
Durham, North Carolina

Minoru Karasawa
Department of Psychology
Graduate School of
   Environmental Studies
Nagoya University
Nagoya, Japan

Roderick M. Kramer
Graduate School of Business
Stanford University
Stanford, California

Jean Lee
China-Europe International
   Business School
Shanghai, China

Geoffrey J. Leonardelli
Rotman School of Management
University of Toronto
Toronto, Ontario, Canada

Robert W. Livingston
Kellogg School of Management
Northwestern University
Evanston, Illinois

William W. Maddux
INSEAD
Organizational Behavior Area
Fontainebleau, France

Melissa M. McDonald
Department of Psychology
Michigan State University
East Lansing, Michigan

Eric Middleton
School of Psychological and
   Behavioral Sciences
University of West Florida
Pensacola, Florida

Carlos D. Navarrete
Department of Psychology
Michigan State University
East Lansing, Michigan

Cynthia L. Pickett
Department of Psychology
University of California
Davis, California

Glenn D. Reeder
Department of Psychology
Illinois State University
Normal, Illinois

Ann C. Rumble
Ohio University-Chillicothe
Chillicothe, Ohio

Jeffrey Schank
Department of Psychology
University of California
Davis, California

Katharina Schmid
Department of Experimental
  Psychology
University of Oxford
Oxford, United Kingdom

Sherry K. Schneider
School of Psychological and
  Behavioral Sciences
University of West Florida
Pensacola, Florida

Jeffrey W. Sherman
Department of Psychology
University of California
Davis, California

Jim Sidanius
Department of Psychology
Department of African and
  African American Studies
Harvard University
Cambridge, Massachusetts

Paul E. Smaldino
Department of Psychology
University of California
Davis, California

Joel A. Thurston
University of California
Santa Barbara, California

William von Hippel
School of Psychology
University of Queensland
St Lucia, Queensland,
  Australia

Nate Way
Department of Psychology
University of California
Santa Barbara, California

Masaki Yuki
Department of Behavioral
  Science
Hokkaido University
Sapporo, Hokkaido,
  Japan

Guozhen Zhao
Department of Management
  and Global Business
Rutgers Business School
Rutgers University
Newark–New Brunswick,
  New Jersey

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RIGOR WITH RELEVANCE

The Many Legacies of Marilynn B. Brewer

Robert W. Livingston, Geoffrey J. Leonardelli,
and Roderick M. Kramer

This Festschrift honors Marilynn Brewer's distinguished career in social psychology. Since receiving her PhD in 1968, her career has spanned 43 years as of the writing of this chapter, left an indelible impact on the field of social psychology, and earned the conferral of almost every major award that a social psychologist can receive. Putting that career in its proper context is a daunting task because of the depth and breadth of her numerous and diverse contributions. The latter half of the twentieth century witnessed an explosion of social psychological research on several important theoretical fronts, including prejudice and intergroup relations, social identity theory, sociobiology, anthropological approaches to human psychology, and the psychology of the social self. There were also concerted efforts to develop more applied social psychological theory and research, including addressing problems of prejudice, discrimination, cooperation and conflict, and social dilemmas. Amazingly—or perhaps of no surprise at all—Marilynn Brewer's work reflects major theoretical and empirical advances in each of these frontiers. Indeed, these contributions are showcased in the chapters contained in this Festschrift.

To properly contextualize the thematic direction of this Festschrift's chapters, it is necessary to know something about the scientist whom this Festschrift honors. As a student of the legendary Donald T. Campbell,

Marilynn Brewer cared about methodology. She recognized the benefits of multiple methods to converge on an idea, and her empirical work employed a variety of methodologies, from ethnography and field research to survey research and basic experimental laboratory research. Marilynn has been truly ambidextrous when it comes to data. Moreover, she has written widely on the proper understanding and creative use of research methodologies for testing hypotheses in the social sciences.

However, just as important for her was the coupling of methodological rigor with relevance (Brewer, 1985)—relevance through deep theory on outcomes and behaviors that offer great significance to the sciences as a whole. Her writings offered a powerful and principled perspective, where she forcefully presented her empirical tests with convincing and meaningful rationale. Moreover, her theoretical perspectives offer substantial contributions to social psychological phenomena— including intergroup relations, social dilemmas, self and social identity, stereotyping, methodology, and attribution theory—a wide range to be sure. However, her contributions reached beyond that—going wider and farther—by offering a redefinition of and redirection within social psychology itself (Brewer, 1997, 2004). Instead of treating social psychology as colony of other domains—for example, cognitive psychology, learning theory, or psychophysiology—she argued for a more imperialist view, one in which social interdependence *is the basis* for shaping human cognition, emotion, and motivation. Her perspective, shared often in her collaborations with Linnda Caporael, builds from core assumptions that the social context exerts a downward force on human psychology.

The duality of rigor and relevance epitomizes the duality of Marilynn's expertise. In an honor bestowed only upon the top experts in the field of social psychology, who are usually asked to write just one, Marilynn coauthored *two* chapters in the 1998 *Handbook of Social Psychology*: one on experimental methods in social psychology (Aronson, Wilson, & Brewer, 1998), and another on intergroup relations (Brewer & Brown, 1998).

Her career communicates not only her commitment to rigor and relevance, but also her commitment to people. Marilynn touched and changed the lives of many graduate students, postdoctoral students, and professional colleagues from America to Australia, Italy to Israel, and Chile to China. As befitting the individual who inspired them, the chapters in this book pay homage to her enduring influence. The contributions range from beautifully crafted and carefully controlled experimental studies to field research and archival case studies. Given the breadth of Marilynn's theoretical interests, her equally wide-ranging empiricism, and her enthusiasm for multimethod social psychology,

the reader will encounter considerable diversity. The content of the chapters is also eclectic and encompasses a diverse range of topics from religion to gender to social dilemmas. Nevertheless, they share a common intellectual legacy, as Marilynn's contributions to social psychology were also broad reaching.

The extraordinary range of Marilynn's scholarly career made our role as editors of this Festschrift both exceptionally easy and extraordinarily difficult. It was made easier because Marilynn worked with so many eager and willing students and colleagues over the years. Thus, we encountered no shortage of stellar scholars on whom to draw for contributions. It was made difficult because compiling and organizing such a large contribution into one book was quite daunting. Moreover, we knew from the outset that accommodating everyone who desired to participate in this Festschrift would be impractical—the line was simply too long! We also recognized that it would be impossible to do justice in one edited book when it came to acknowledging all of the fundamental areas and distinct ways in which Marilynn had left her mark on the field. Thus, we knew that there would be sins of omission.

Happily, Marilynn willingly and enthusiastically jumped in and provided her usual perfect assist. She was generous in helping us to shape the scale and scope of our endeavors, identifying some of the major areas she hoped we would cover and offering useful thoughts on how her contributions might best be framed. There was, quite obviously, a great deal of ground to cover; Marilynn's collaborative work is spread over several generations of students. Indeed, in a very real sense, our collaboration as coeditors reflects the impressive longevity of Marilynn's career and the diversity of interests it encompassed.

FACTOR ANALYZING MARILYNN'S ACADEMIC LEGACY: OVERVIEW AND ORGANIZATION OF THE PRESENT BOOK

How does one summarize and organize the multifaceted contribution of a creative and prolific genius (e.g., Shakespeare, Brewer)? One challenge of our tribute was encapsulating Marilynn's far-reaching contributions, across time, topic, application, and method, into one succinct book. We found it a formidable challenge to attempt a comprehensive volume touching on all the areas where Marilynn made such important and fundamental contributions to her chosen discipline. Nonetheless, we have tried to bring together a group of outstanding social psychologists—some young(er) and some old(er)—but all distinguished in their own right.

The present book is organized into three sections, in accord with Marilynn's own wishes. The first includes theoretical contributions to social cognition. The second focuses on contributions to social identity and intergroup relations. The third is more eclectic in subject matter, encompassing some applications of social psychological theory and research in the substantive areas in which Marilynn worked or in which her students extended the range of her ideas. As coeditors, we were also pleased that we were able to represent a variety of diverse methodologies in this collection, ranging from traditional laboratory experiments to field studies, archival studies, and even agent simulations.

Fortunately, we were able to persuade Marilynn that this Festschrift would be incomplete without an autobiographical perspective on her life in social psychology. Her reflective essay provides a wonderful counterpoint to the other contributions in this book and functions as the perfect bookend for our project. In her essay, she describes some of the personal influences and scientific imperatives that drove her interests and the approaches she took in her empirical work. Her students and collaborators will treasure it for its revelations and insights into how a scientist at the top of her game thinks and works. We hope the readers of this book will find Marilynn's career as inspiring as we did.

PERSONAL REFLECTIONS FROM THE EDITORS

Having provided an overview of the contents of this book, we wish to proceed by saying something about perhaps what is between the lines. As an advisor, Marilynn exhorted her students to pursue scientific work with an eye toward both rigor and relevance. Her own example set the high standard for both. As former Brewer advisees, we thought that it would be entirely appropriate (and amusing) for us to disclose never-before-revealed anecdotal evidence of Marilynn's "rigor" and how it has shaped our perspective of relevance.

Robert's route to Marilynn was one of the most circuitous imaginable. The mere fact that he ended up being a student of Marilynn Brewer is a testament to the far-reaching relevance of her work. Being a Spanish major who minored in history, economics, and Latin American studies, he was happily ensconced in a PhD program in romance literature and linguistics at UCLA when he first became infected with Brewer fever. While studying colonialism and oppression in nineteenth-century Latin American literature, he developed an interest in what he would later discover was the topic of intergroup relations. He was so fascinated by the topic, and Marilynn's work, that he decided to leave his program, despite being ABD, to pursue social psychology full time. As

an advisor, Marilynn was the quintessential "mother hen," effortlessly combining warmth, nurturance, and encouragement with discipline, constructive criticism, and tireless tutelage. He has been most inspired by her unshakeable integrity and unpretentious self-assurance, her meticulous and careful approach as a methodologist (i.e., rigor), and her unparalleled ability to think creatively and critically about important questions in the field and our world (i.e., relevance). Marilynn Brewer is a true intellectual—someone who asks big questions and thinks deeply about the answers.

Self and identity were the reasons Geoff attended the Ohio State University in 1996, and the prospect of collaborating with Marilynn was a glorious opportunity. Having read her 1991 paper on optimal distinctiveness theory 2 years earlier, he was excited to work on what he considered to be a new frontier in identity research. However, as he collaborated with her, he realized his interests were changing in ways he had not intended. He began to care more about *social* identity rather than identity itself, to care more about intergroup contact, conflict reduction, and the conditions that facilitate cooperation. Upon reflection, it is easy to point to Marilynn as the source of this change—her interests were rooted in deeply important topics, and her arguments were persuasive and powerful. He has recalled conversations with Cindy Pickett, another former student and collaborator of Marilynn (and an ongoing collaborator of his), and both agreed that, as Marilynn started to twirl her hair, they could sense the thoughts preparing to march out of her mouth: crisp, clear, and ever advancing the goals of the project. She may be Australia's national treasure, but Geoff considers her to be a personal treasure as well, as he has cherished the opportunity to be her student and collaborator.

Rod met Marilynn in 1980, when he was a beginning graduate student in social psychology at the University of California at Santa Barbara. He *thought* at the time that he was pursuing a doctorate in social psychology in order to receive the training he needed to do the applied work he hoped to do at the National Cancer Institute (NCI). He had interrupted his professional work at the NCI to pursue what he thought would be doctoral studies in the psychosocial aspects of cancer. Armed with a PhD, he could then return to that work. In short, a game plan was in place—until he met Marilynn and she became his advisor. She derailed his best-laid plans by making the process of doing basic research so exciting and fulfilling that he never left academia.

Everyone who contributed to this book has a similar story of Marilynn's impact. The people we approached about participating in this effort to honor Marilynn jumped in without hesitation. Despite

their busy careers and lives, no one wanted to be left out. And there was an unusually joyous spirit among all of the contributors—each seemed determined to write something original and special for this tribute. Each was asked not only to describe some of the work they have done that was inspired by Marilynn but also to indicate, in more personal terms, Marilynn's impact as a mentor, colleague, and friend.

Finally, we would like to conclude by noting that we do not believe that this book in any fashion does full justice to a comprehensive assessment of Marilynn's many contributions. The breadth of her contributions is so substantial that we were forced to be selective in what we could capture in one book. Furthermore, we suspect that this pipeline is far from dry (even as we were putting the final touches on this book, one of us received a manuscript to review on which Marilynn was a coauthor!). We hope this Festschrift adds to the large and still growing body of work that reflects Marilynn's extraordinary reach and impact. Although we offer this tribute as a statement of work to date, we would not be surprised if further contributions are forthcoming. Stay tuned!

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I
Social Cognition

2

CATEGORIZATION-BASED VERSUS PERSON-BASED EXPLANATIONS OF BEHAVIORS

Implications From the Dual-Process Model

Minoru Karasawa

It is practically impossible to nominate Marilynn Brewer's one representative work because her research has played significant roles in such diverse areas. Nevertheless, in this chapter, I would dare to highlight her dual-process model (DPM, in my own acronym) of impression formation. The original formulation of this model (Brewer, 1988) was invited as the target article in the inaugural volume of the influential series *Advances in Social Cognition*. Since then the model has been well accepted as one of the major frameworks for the study of person perception. The DPM was among the forerunners on the surge of dual-process theories in various domains of social cognition, including the models of automatic versus controlled, heuristic versus systematic, and spontaneous versus intentional processing (see Chaiken & Trope, 1999, for a comprehensive view). The model has played an integral part of the zeitgeist in this literature over the past two decades or so.

As the name of this model clearly indicates, Brewer (1988) emphasized in DPM that a perceiver may go through two distinct modes of information processing when forming an integrated mental representation of a person. The first mode was called "person-based" processing, which was assumed to concern unique characteristics of the target individual (e.g., "He is a brave man"). The second mode, "category-based" processing,

was assumed to be based on preexisting knowledge or expectations about social categories to which the target belongs ("a firefighter"). The consequence of the latter mode may activate a prototypical (and often pictorial) image that matches the person, such as imagining a well-built, bearded man. This process was called "typing" in DPM. Alternatively, a contrasting effect called "individuation" may take place, such that the person is interpreted as an exceptional case for the activated category (e.g., "a brainy type reading lots of books").

A notable contribution of DPM is that the model illustrated a variety of ways in which categorical expectations are reflected on the impression of an individual person. Inspired by this emphasis, I will attempt in this chapter to offer an additional vantage point on the issue. Specifically, I argue that categorical expectations play a significant role not only in impression formation but also in *explanations* of observed behavior. More often than not, people refer to a category or group membership of the actor in their attempt to figure out the cause of or the reason for an observed behavior. For instance, an Asian woman's high scores in math exams may be more easily accounted for by her ethnicity rather than by her unique individual dispositions such as her exceptional level of effort or interest in the subject. Alternatively, an outstanding performance by a member of a disadvantaged group may call for praise of his or her talent exactly because the category membership augments dispositional attributions (cf. Jones & McGillis, 1976).

In the following section, I will discuss empirical evidence concerning various forms of category-based causal explanations. I will then argue that people not only generate categorical accounts for individuals' behavior but also construct explanations for acts by a *group as a whole*. The crucial role that inferences of causality and agency play in animating perception of groups will be demonstrated.

CATEGORY-BASED CAUSAL ATTRIBUTION

Social psychological studies of causal explanations have traditionally been based on the distinction between "internal" and "external" attributions (e.g., Jones et al., 1972). In particular, when ordinary people observe an act by an individual, they tend to center their causal explanations on particular attributes or dispositions of the actor (i.e., internal attribution) as opposed to situational causes (Gilbert, 1998). Attributions based on individual characteristics, however, are not the only form of causal understanding of the observed behavior. As I mentioned in the preceding paragraphs and as the DPM of impression formation

may well suggest, causal inferences about behavior are at times constructed on the basis of a category or a group that the actor belongs to.

Earlier researchers certainly noted the potential influence of categorical information on causal attribution. Specifically, Jones and McGillis (1976) proposed that a *category-based expectancy*, as compared with a *target-based expectancy*, can either mitigate or augment correspondence inference. For instance, the statement, "I really love a Honda," will be more likely attributed to the speaker's true attitude (i.e., an internal attribution) when it is discovered that the person works for Toyota rather than Honda. The mismatch between the expectancy for a Toyota employee and the behavior is assumed to lead to a "noncommon effect." The influence of categorical expectancies can also take a special form in the in-group versus out-group context. According to the study of "ultimate attribution error" (Hewstone, 1990; Pettigrew, 1979), desirable behaviors by in-group members tend to be attributed to the actor's dispositions, whereas equally desirable behavior displayed by an out-group member is attributed to situations, or unstable causes such as "exceptional effort." These effects are assumed to stem from in-group favoring and out-group derogating expectancies. However, these models were primarily concerned with how category-based expectancies moderate attributions to the actor's internal factors as opposed to external causes. A different theoretical framework was needed to examine how categorical attributions per se are constructed.

The Accessibility and Fit of Categorization

From the perspective of Self-Categorization Theory (Turner, Hogg, Oakes, Reicher, & Wetherell, 1987), Oakes, Turner, and Haslam (1991) maintained that attribution to the actor's category membership is a joint function of the *accessibility* of the category membership and the *fit* between the observed behavior and categorical expectations. In one of their experiments, these researchers demonstrated that when an individual group member was in a "solo status" with regard to gender (i.e., the only male in a group along with five females, or vice versa), his or her deviant opinion against all other members was particularly likely to be subject to a categorical explanation (i.e., "Because men (women) typically hold this kind of view"). In other words, the covariation between the salient gender category and the distinctly deviant behavior facilitated the category-based attribution.

Our own research (Karasawa & Sano, 1996, Experiment 1) extended this idea to test whether stereotypic expectations about the target category could elicit attribution to the category under the solo

status context. Japanese college students were presented with two vignettes that described on-campus groups making decisions about role assignments. Following the experimental paradigm developed by Oakes et al. (1991), each case depicted six members with varying ratios between male and female members (1:5, 3:3, or 5:1). Each scenario contained two critical assignments that were either gender stereotyped or counterstereotypical. For instance, a "drama club" was described to be in need of deciding who should take the role of the *director* (which had been identified in a pilot study as a typically masculine role) and who should be the *costume designer* (i.e., a typically feminine role). The resultant role assignment depicted in the vignette was either stereotypical (i.e., a male director and a female costume designer) or counterstereotypical (vice versa). The second scenario described a sport club deciding who should be the *chairperson* (i.e., masculine) and who should *serve tea* (i.e., feminine) at an important intercollegiate meeting. Hence, the experimental design was a 2 (stereotypicality of the role assignment) × 3 (gender ratio: male majority vs. equal vs. female majority) × 2 (target individual's gender) mixed model, with the first two variables as between participants and the last as a within participants variable.

After reading each scenario, participants were asked to make causal judgments about each target's role assignment. The most relevant to the present discussion was the endorsement for a categorical cause (i.e., "because he or she was a man or woman"). Consistent with our prediction, we found that a stereotypic role assignment was attributed to the target's gender, especially when the target was in the salient solo status (Figure 2.1a). As for the scenario of a drama club, the stereotypicality × gender ratio × target's gender interaction was statistically significant ($p < .05$). When the role assignment was gender stereotypical (i.e., a male director and a female costume designer), the causal explanation referring to gender was most likely in the solo status condition. However, the likelihood of such categorical attribution was constantly low when the assignments were counterstereotypic.

Likewise, Figure 2.1b shows that the categorical attribution score was particularly high for the stereotypic male chairperson in the solo male condition, whereas a symmetric pattern was found for the female target serving tea. Furthermore, these patterns were replicated in another study that used videotaped discussions instead of written scenarios as the experimental stimuli (Karasawa & Sano, 1996, Experiment 2). Together, these results demonstrate that category-based attributions are determined by the salience of category identity and its fit with stereotypical role expectations.

Typical assignment
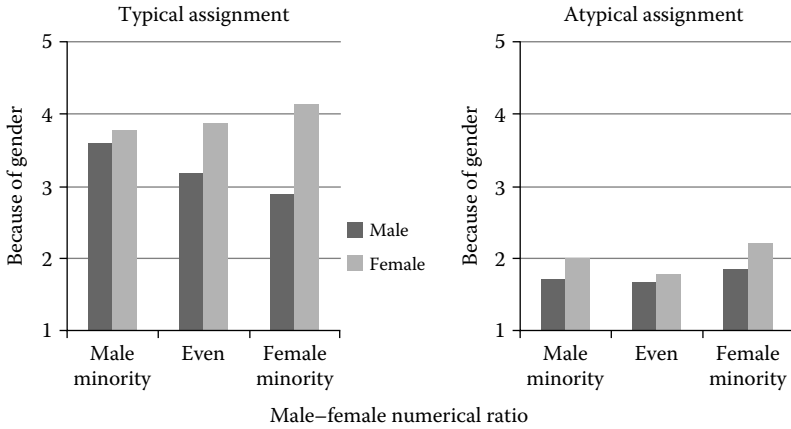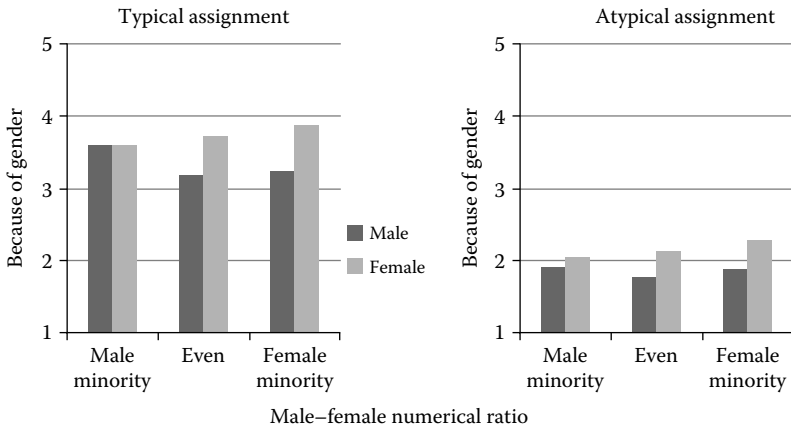
(a) Drama club scenario

Figure 2.1 Mean categorical attributions for (a) drama club scenario and (b) sport club scenario. (From Karasawa, M., & Sano, S. (1996, Experiment 1). *Transactions of the Institute for Cultural Studies, Aichi Gakuin University*, *11*, 1–9. With permission.)

Psychological Essentialism

Recent studies show that category-based explanations are potentially related to beliefs in "essence" that lie at the core of the target categories. For example, Prentice and Miller (2006) invited either mixed-gender or same-gender unacquainted pairs to their experiment. On the basis of a dot-estimation task, they classified the participants into two fictitious categories named "overestimators" and "underestimators." They

found that participants generalized the observed perceptual tendencies to other people of the same gender, particularly when the gender and the perceptual tendencies were *both* different within the pair (i.e., a male overestimator and a female underestimator, or vice versa). Interestingly, even though participants in the other conditions generally "regressed" toward an assumed norm in the second trial of dot estimation (i.e., overestimators reduced and underestimators increased their estimates), individuals in those double-difference pairs maintained their standards of estimation. Because the perceptual tendency and gender visibly covaried in these pairs, the participants were presumably able to attribute that association to some essential feature of the gender category. Consequently, they might have felt justified to generalize the observation to the rest of the members of each category and to adhere to their own judgmental standards.

In one of our own studies (Tsukamoto & Karasawa, 2010), we examined whether the effects found by Prentice and Miller (2006) were truly related to psychological essentialism. Our results conceptually replicated the predecessors' finding with "Japanese students" versus "international students" classification employed as the target of essentialism. More importantly, applying an essentialism scale developed by Haslam, Rothschild, and Ernst (2000), we found that only in the double-difference condition, but not in the others, the amount of generalization was significantly correlated with the strength of essentialist beliefs, particularly on the "exclusiveness" of being Japanese (i.e., "A Japanese person cannot be a different nationality at the same time").

Consequence of Attributing to Group Discrimination

Category-based attribution may also invite a peculiar effect involving group discrimination. Members of disadvantaged groups are often placed in a dilemma concerning how to interpret an unwanted result. For instance, a woman who has just received a rejection letter after applying for job may wonder whether this can be a case of gender discrimination. On the other hand, she would also need to know, for the purpose of adjustments, whether or not the true reason of the failure had anything to do with her personal attributes such as her lack of abilities or having taken the wrong strategy. This "attributional ambiguity" can be a major source of psychological distress among members of a stigmatized group, including lowered self-esteem, pessimism, and reactions from others as hypersensitive (Major & Crocker, 1993).

A theoretically important question arises as to whether attribution to discrimination *should* be viewed as an internal or external cause. Also, it is an empirical question regarding how it *is* actually viewed by

ordinary people. On the one hand, attribution to discrimination can be seen as an "external" causality, in that this type of explanation can be made independent of, or even as opposed to, the actor's personal attributes. Indeed, claiming discrimination for a negative outcome, rather than blaming the self, may alleviate the potential damage to self-esteem (Crocker & Major, 1989). On the other hand, attribution to discrimination is likely to heighten the awareness on the part of the rejected person concerning the fact that he or she belongs to a stigmatized group. Arguably, such category-based self-concept may imply an "internal" causality. Indeed, a study by Schmitt and Branscombe (2002) demonstrated that the locus of causality with regard to discrimination can be perceived as *both* internal and external at the same time. As a consequence, attribution to discrimination may not necessarily be a remedy to damaged self-esteem but may instead hurt self-esteem even more than other kinds of attributions (Schmitt & Branscombe, 2002, Study 2).

The possibility that discrimination attribution threatens self-esteem can account for why members of a stigmatized group at times attempt to avoid this type of causal explanation. For instance, Asai (2006) presented Japanese female undergraduates with a scenario that described a woman failing in her job interview. Participants were then asked to imagine that either herself or another female applicant was the protagonist. Also, modeling the experimental paradigm that was originally contrived by Ruggiero and Taylor (1997), the scenario informed the participants that some members of the interview panel were potentially sexists. The informed proportion of sexists among the all-men panel was allegedly 100%, 60%, or 0% depending on the experimental condition, and thus, the probability of discrimination was manipulated. Participants were then asked to rate how likely discrimination, as well as the protagonist's personal attributes (i.e., "lack of talent," "wrong strategy"), was the cause of the outcome.

As illustrated in Figure 2.2a, when the participants projected themselves on the protagonist, they showed a high level of discrimination attribution only in the condition with a 100% probability of discrimination. The attribution to discrimination dropped even when the probability was still moderately high (60%). These results were consistent with the general pattern found by Ruggiero and Taylor (1997). However, when it came to an in-group other, participants were more willing to acknowledge discrimination in the 60% condition, thus apparently lowering the definitive standard of discrimination. In other words, the female participants minimized the possibility of discrimination, particularly when the potential discrimination pertained to their own fate.

Attribution to discrimination

Attribution to personal factors

(a) Failure scenario

Attribution to favoritism

Attribution to personal factors
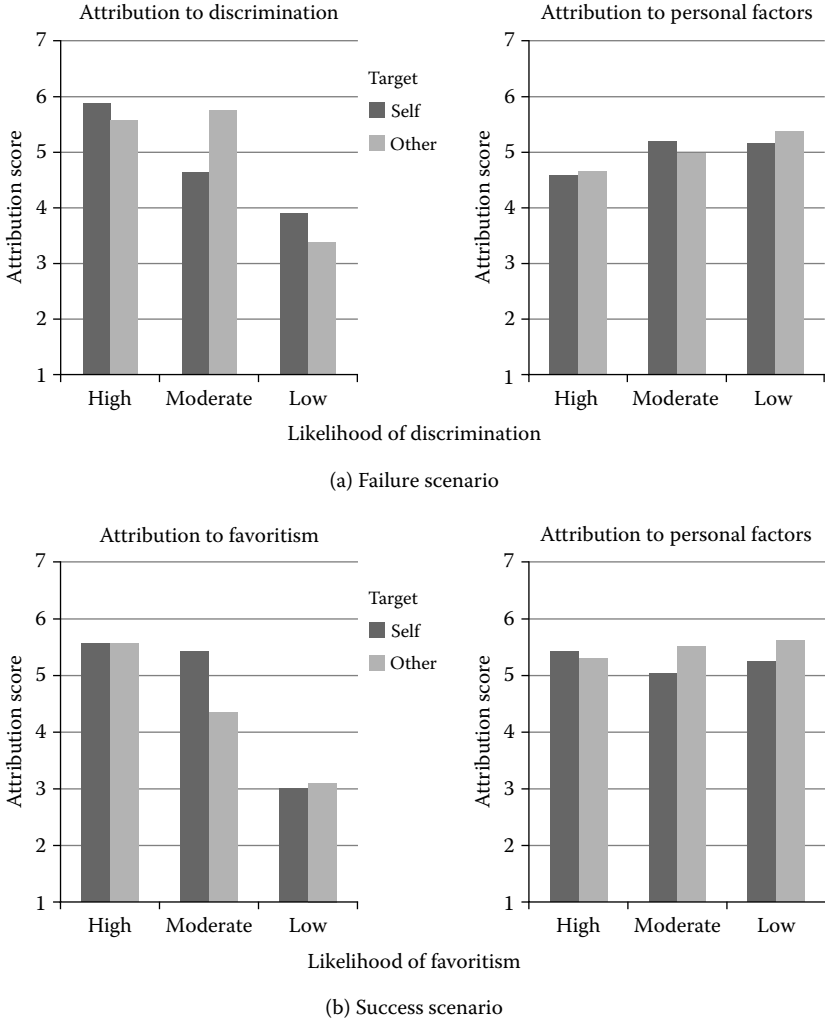
(b) Success scenario

Figure 2.2 Mean scores of attribution to (a) discrimination in the failure scenario and (b) favoritism in the success scenario. (Reproduced from Asai, N. (2006, Study 2). *Japanese Journal of Psychology, 77,* 317–324 (in Japanese with an English abstract). Copyright 2006 by the Japanese Psychological Association. With permission.)

In contrast to discrimination attribution, self-blame (i.e., attribution to personal causes) did not show any significant differences between the conditions.

It should be noted that Asai's study (2006) also included experimental conditions with a desirable outcome. Participants in these conditions

were asked to imagine that the protagonist, again either the self or an in-group other, was successfully admitted for the applied job. This time, the base-rate probability of *favoritism* was manipulated with the proportion of feminists in the panel systematically varied. As can be seen in Figure 2.2b, participants were now willing to attribute their own success to favoritism as long as the bias in the panel was moderately likely. This tendency was found whether the self or an in-group other was imagined in the situation.

To summarize, category-based causal explanation appears to operate not only on the construal of an event that other people incurred but also on that of an event inflicted on the self. In particular, attributing an unwanted outcome to discrimination against one's own group can be a double-edged sword, in that it may help the actor escape self-blame in some cases but may damage self-evaluations. Also, claiming discrimination may elicit reactive responses from the dominant group because of perceived "hypersensitivity," resulting in a new stigma as "claimers" attached to the in-group (e.g., Kaiser & Miller, 2001). Indeed, a recent study by Asai and Karasawa (2009) revealed that members of a stigmatized group perceived the social cost associated with claiming discrimination to a greater extent when they were seen by a stranger rather than by a friend. As I have repeated thus far, DPM was postulated for the understanding of impression formation processes. Yet, its emphasis on the importance of category-based information processes resonates with the fact that category-based explanations about the self can be internalized to as great an extent as the study of discrimination attribution has demonstrated.

BEHAVIORAL EXPLANATIONS
ABOUT COLLECTIVE ACTS

I have discussed thus far how categorical knowledge and expectations influence the interpretation of an individual's behavior and characteristics. Viewed from a different perspective, one should also notice that we often look at *groups* of people with an expectation that they typically apply to individual actors. We may certainly view an individual through a collective lens and pay attention to his or her categorical membership, but on the other hand, they also look at a group of people in a "personified" way, regarding the group as a unitary or even mindful entity (e.g., "Nation X resented Nation Y's malicious provocation"; "The youth of today are indifferent to politics").

Impression Formation about a Person and a Group

In their extensive review, Hamilton and Sherman (1996) presented ample evidence showing that perceivers process information about an individual's behavior in quite different ways than when they observe behavior engaged in by a group of people. These authors, however, also pointed out that a group may be perceived as though it behaved like an individual person under certain circumstances. They emphasized that a key variable that facilitates such personified perception of a group is the perceived unity among the group members. Group members who are closely tied to each other or to the group identity are generally perceived to behave in a more coherent manner and are subject to person-like information processing compared to the perception of a loose collection of people. The lay intuition that a social group may act as a distinct social agent has been conceptualized by the term "entitativity," which was originally coined by Campbell (1958). The study of entitativity is another field to which Marilynn made significant contributions (e.g., Brewer & Harasty, 1996; Brewer, Hong, & Li, 2004), and empirical findings regarding this concept are discussed in great detail by David Hamilton and colleagues in Chapter 3 of this book.

Furthermore, when a group of people is perceived as if it were an entitative "thing" or "organism" (cf. Campbell, 1958), it is plausible that there also arises the perception of causal agency in that entity. Specifically, empirical evidence shows that a highly entitative group, compared to a low-entitativity group, is more likely to be held responsible and blamed for promoting its members toward or not preventing them from wrongdoing (Lickel, Schmader, & Hamilton, 2003). Furthermore, I would argue that once a group is perceived to be an agentic entity, some kinds of mental states (e.g., goals, motives, intentions, independence, and free will) can be assumed inside of the group, just as in the case of blameworthy individual actors (cf. Shaver, 1985). In the following section, I will first discuss how people construct the perception of intentionality. A model proposed by Malle (2004) will be employed as an analytical framework. I will then turn to applying the model to a study of the perception of a group's intentionality. Finally, I will come back to discuss the possible relationship between group entitativity and perceived intentionality, as well as judgments of responsibility.

"Theory of Mind" about Groups: Perception of Collective Intentionality

In a series of studies, Malle (2004) and his colleagues demonstrated that ordinary people can make intuitive judgments highly confidently about what acts are intentional and what acts are not. In addition, they

found that the intentionality judgments are verbalized in a systematic way. One typical form of expressing intentionality perception is called "reason explanations." This type of explanation ordinarily refers to the mental states assumed inside of the actor, including *beliefs* (e.g., "I said that because I *thought* my comments would help him") and *desires* (e.g., "I said that because I *wanted* to help him"). Hence, it appears to be a commonly shared knowledge among lay people that such a mental state is a prerequisite for intentionality to be recognized.

Not all perceptions of intentional behaviors, however, need to be based on explicit reasons. Some behavior can be explained in terms of more distal background factors, and yet may be regarded as intentional. Such distal factors summoned for intentionality judgments are termed "causal history of reason" (CHR). Typical examples of CHR include situational forces, actor's dispositions, social categories and roles, and life history such as their upbringing. CHR may certainly result in belief-based or desire-based intentions, but the actor does not consciously recognize the causal relationship under normal conditions. To take a concrete example, person may attack someone else because of his aggressive trait or because of psychological stress due to his social circumstances, but normally he would not make a deliberate decision such as "I will hurt him because I am an aggressive person" or "because I am under enormous stress."*

The model postulated by Malle (2004) primarily concerns how people construct the judgment of intentionality in an individual's acts. However, the model can be extended to the judgments about groups as well. That is, people may apply a similar kind of "theory of mind" when they try to find meanings in an act by a group. Just as they assume that the source of an individual's intention resides in his or her mental devices like "brain" or "heart," they may also look for an executive function in a group as a core of collective intention. To the extent that perceivers can find a certain mind-like function in a group, they will be more likely to use reason explanations, rather than CHR explanations, in understanding a group's conduct.

To test this possibility, Teramae and Karasawa (2008) manipulated the existence of a well-functioning "brain" in a group and examined the type of resultant behavior explanations. Japanese undergraduate students read a scenario that described a police department reaching a wrong decision (i.e., arresting an innocent person as a crime suspect).

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* If the actor does make a decision based on such deliberation, then the case can be classified as a reason explanation, which regards the act as a result of the actor's mental state (i.e., the awareness of the traits or stress).

In the "executive function present" condition, it was described in the scenario that the department established an investigation headquarters so that this executive unit could process relevant information and make important decisions. In the "executive function absent" condition, it was stated that there was no such executive unit. In addition to these "group actor" conditions, there were "individual actor" conditions in which an individual officer, a member of either the department that had an executive function or the one with no such function, made the same mistake (i.e., arresting a wrong person) on his own capacity. In other words, the same information concerning the characteristics of the group (with the presence or absence of the executive unit varied) was provided across the individual and the group actor conditions. After reading the scenario, participants were asked to provide open-ended explanations, whatever they could envision, for why the actor resulted in the wrong decision. They were allowed to write down three different explanations as maximum.

On the basis of Malle's coding system of behavior explanations (Malle, 2004), we developed a Japanese version of the coding scheme and applied this to our data. (The original agreement rate between two independent coders was 92% with $k = .86$.) Among the various explanation categories, the main interest for the present discussion is in the reason and CHR explanations. Typical examples of reason explanations mentioned that "they were (he was) sure that the guy was the suspect," "found valid motives in the suspect," and "wanted to resolve the case quickly." On the other hand, CHR explanations typically referred to the lack of integrity as an organization, insufficient investigations, a low level of morale, and so forth. We compared the mean number of each type of explanation across the experimental conditions (see Figure 2.3). A 2 (actor) × 2 (executive functioning) × 2 (explanation type) mixed-model analysis of variance with the last factor as within-participant indicated a significant functioning × explanation type interaction ($p < .001$). As we predicted, reason explanations outnumbered CHR explanations when the police department was depicted as working under a well-functioning executive unit, whereas the opposite pattern was found in the no executive function condition. To our surprise, however, this was true to both actor conditions. Even when the actor was an individual police officer, participants found a higher level of mindfulness when the group was depicted as working under a well-functioning executive unit. This may be accounted for, at least in part, by a cultural basis of behavior explanations, in that people living in East Asian cultures are known to be inclined toward emphasizing group agency rather than individual agency in contrast to those
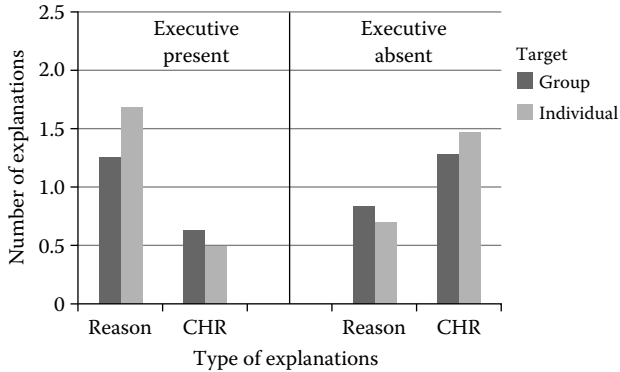
Figure 2.3 Mean number of reason explanations and causal history of reason explanations. (Reproduced from Teramae, S., & Karasawa, M. (2008). *Journal of Human Environmental Studies, 6*, 35–41 (in Japanese with an English abstract). Copyright 2008 by the Society for Human Environmental Studies. With permission.)

living in the United States (e.g., Menon, Morris, Chiu, & Hong, 1999). Consequently, the high level of attention to the group agency observed among the Japanese participants may have been carried over to their judgments on the individual's act.

The notion that a group may have a mental state has long been rejected in social psychology as a nonscientific fallacy (Allport, 1924). Indeed, researchers would typically face difficulty in providing an operational definition of group mind. However, the findings by Teramae and Karasawa (2008) demonstrate that behavior explanations constructed by ordinary people can easily presuppose intentions associated with beliefs and desires even in a group, as long as the group is perceived to possess a mind-like function.

Group Entitativity, Collective Intentionality, and Responsibility

The results from the Teramae and Karasawa study (2008) are consistent with findings by O'Laughlin and Malle (2002). These researchers revealed that reason explanations were more prevalent in interpretations of behaviors that were observed in jointly acting group members (e.g., the department faculty at a particular university planning to introduce a new curriculum requirement), relative to what was observed in loosely connected aggregates (e.g., department chairpersons in the United States planning a new curriculum requirement). In contrast, CHR explanations were more prevalent for the latter than the former type of group. A rationale behind this study was that a mental state as a premise of intention should be more likely to be assumed for the

jointly acting group members. This would make it easier to coordinate the behavior of complex and inconsistent behavioral tendencies among group members. In contrast, CHR should provide a "parsimonious" explanation for the lay understanding of a group with potentially diverse tendencies.

The concept of group entitativity should nicely characterize the jointly acting people in the O'Laughlin and Malle study (2002). In other words, a highly entitative group may be an easier target of assuming intentionality in its act compared to a low-entitativity group. Furthermore, drawing on the findings from Teramae and Karasawa (2008), a theory of mind about a group does not necessarily call for the entitativity of the whole group. Instead, the recognition of a coherent subgroup that serves as a mindful executive unit may suffice to elicit the perception of collective intentionality, as well as a subsequent judgment of collective responsibility.

One of our own studies (Hioki & Karasawa, 2010, Study 2) addressed this issue. Participants in this study were presented with a scenario describing wrongdoing by a food company. In one experimental condition, the board of directors of this company was described as highly entitative, such that the board members communicated well among themselves concerning business matters and liked each other, often playing golf together and going out to a group travel on a regular basis. In the other condition, the entitativity was described as low such that their attraction and communication levels were both low and that the board members were often in conflict and confrontation on various matters. The scenario also described a case of wrongdoing by an employee of this company, such as knowingly mismanaging the sanitary conditions of a factory, which eventually caused a food-poisoning incident, or insider trading of a company's stocks. After reading one of these cases, participants were asked to indicate the extent to which they found intentionality and responsibility on the side of the executive board for allowing the malpractice to take place.

As depicted in Figure 2.4, the mean ratings of perceived intentionality and responsibility showed identical patterns. As for the case of food poisoning, the highly entitative board of directors was perceived to have acted more intentionally relative to the low-entitativity board. The assignment of responsibility was also higher for the former group. However, the case of insider trading did not produce a significant effect of entitativity on either the intentionality or responsibility rating. It is not entirely clear why the effect was observed only in the food poisoning case, but we speculate that the entitativity of an executive subgroup
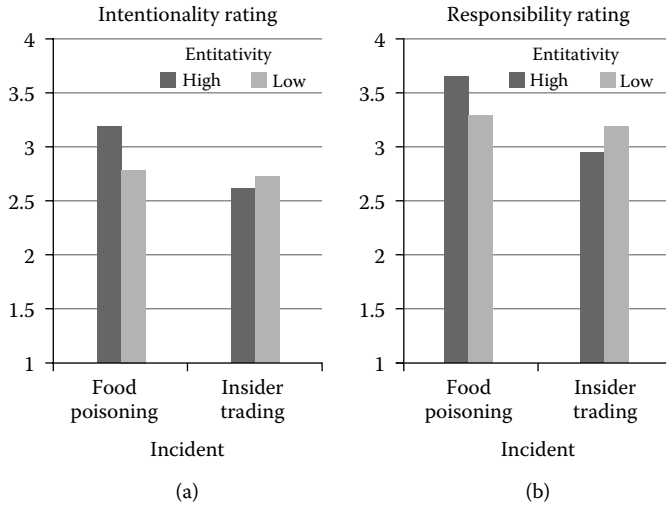
Figure 2.4 Perceived group (a) intentionality and (b) responsibility. (Reproduced from Hioki, K., & Karasawa, M. (2010). *Japanese Journal of Psychology, 81*, 9–16 (in Japanese with an English abstract). Copyright 2010 by the Japanese Psychological Association. With permission.)

may be particularly influential when the incident is directly relevant to a particular type of business (e.g., manufacturing food products).

Nevertheless, the analyses of causal paths revealed that the rating of intentionality did lead to the rating of responsibility in both the food poisoning and the insider trading scenarios (overall $\beta = .40$, $p < .01$). Furthermore, perceived responsibility significantly influenced the intent to purchase a product of this company ($\beta = -.22$, $p < .05$). Interestingly, the perceived responsibility fully mediated the influence of intentionality perceived in the executive board leading to the simulated consumer's intent to purchase. Exactly the same meditational effect was found in another experiment using a different scenario (i.e., a sexual harassment case; Hioki & Karasawa, 2010, Study 1). Taken together, these results suggest that a highly entitative subgroup with an executive function (e.g., board of directors) is perceived to behave intentionally and is also held responsible for acts by members of a more comprehensive group (e.g., employees of a company). Furthermore, the perception of subgroup intentionality and responsibility may determine attitudes or behavioral intention toward the group (e.g., consumer intent to purchase). These results suggest that the study of entitativity and intentionality at a group level may have business implications with regard to issues such as corporate governance and social responsibility.

CONCLUSION

The DPM, like other similar and related models (e.g., Fiske & Neuberg, 1990), has elucidated that information processing about a single person is typically operated through a number of different modes. The model specifically focused on category-based versus person-based processing. Likewise, a group of people may be viewed in different ways depending on whether the perceiver views it as an aggregate of distinguishable individuals or as a singular social entity. This chapter demonstrated that the same is true to inferences about causality and agency in acts by individuals and groups. It is particularly an interesting social-psychological problem with respect to how people recognize agency in social collectives. In my attempt to suggest the possibility of different approaches to clarifying these issues, I frequently referred to research findings from our own lab, some of which are still at a preliminary stage and others having been published only in Japanese. These studies have been typically advanced by junior researchers as the chief investigators and are now brought into a broader arena for the first time. The inspiration from the DPM, along with other countless achievements by Marilynn Brewer, should continue to stimulate further exploration into these research endeavors through direct, as well as indirect, routes of impact.

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3

DYNAMIC ASPECTS OF ENTITATIVITY

From Group Perceptions to Social Interaction

David L. Hamilton, Jacqueline M. Chen, and Nate Way

In 1996, two papers were published, quite independently, that regenerated interest in a long-dormant topic. That topic was presented in an article by Campbell (1958), in which he introduced the less-than-user-friendly term *entitativity*. (Following a talk on this topic, one of the authors was asked, "Was Campbell a stutterer?") Campbell's paper was not a report of empirical research but rather a conceptual analysis on the basis of which the "groupness of groups" could be determined. Drawing on Gestalt principles of perception, Campbell identified several properties that could be used to ascertain the extent to which an aggregate of individuals constitutes a group. These properties included the similarity and proximity of the individuals to each other, the extent of interaction among them, their degree of coordinated action, and the extent to which they share a common fate. These properties could be used to understand what makes a group really a group, and could also be used by an observer in perceiving the groupness of groups. Campbell's analysis was stimulating, and in subsequent years his article and the concept were cited with some frequency. For reasons unknown to the present authors, however, very little research was spawned on the topic.

The two papers mentioned in our opening sentence—by Brewer and Harasty (1996) and Hamilton and Sherman (1996)—also were primarily conceptual analyses rather than empirical reports. However, in the 15 years since their publication, theorizing and research on the

perception of groups has expanded in new directions and has advanced our understanding of group perception in new ways (Hamilton, 2007). In this chapter, we discuss those developments in terms of the themes and foci of the two 1996 papers, highlighting their different (though not conflicting) emphases and reviewing the various types of research they generated. In fact, we argue that these two papers served as a catalyst for a body of research that has advanced our understanding of what "entitativity" is and how it functions in group perception, a body of research that continues to evolve and extend our knowledge about intergroup phenomena.

Hamilton and Sherman's (1996) approach was to focus on information-processing mechanisms that provide the foundation for group perceptions, in particular for perceiving group entitativity. In contrast to this cognitive emphasis, Brewer and Harasty's (1996) chapter discussed a broad array of variables that would influence perceived entitativity, such as intergroup context, perceiver motives, and aspects of group representation and group structure. Brewer and Harasty also explored the implications of perceived group entitativity for some important downstream consequences. Our message in this chapter is that the research stimulated by these two papers has transformed the notion of entitativity from an intriguing idea into an important and viable area of research. Our goal is to bring that research together in a comprehensive and integrated manner.

COGNITIVE FOUNDATIONS OF PERCEIVED ENTITATIVITY

The focus of Hamilton and Sherman's (1996) article was not on entitativity per se. Its primary purpose was to pursue an extended comparison of how perceivers process information about individual persons and groups. Drawing on the extensive impression formation literature, they argued that processing information about individuals is governed by a series of principles. These principles all derive from a basic premise that perceivers assume unity in the personalities of others, that persons are coherent entities. Based on that premise, other principles followed: that perceivers expect consistency in a person's personality (as manifested in their traits, attitudes, and behaviors), draw inferences about the dispositional properties that characterize the person's personality, develop an organized impression of the person, and seek to resolve inconsistencies in the information they learn about a person. All of these principles are supported by research on impression formation, inference processes, and person memory. Hamilton and

Sherman's (1996) primary argument was that perceivers make these assumptions less strongly about groups than about individuals, and they reviewed a considerable body of evidence that supported that argument.

This analysis was a comparison between two different types of targets—persons and groups. Hamilton and Sherman (1996) then noted that there obviously is variation within each of these types—among individuals and among groups—in the extent to which they are perceived as having unity and coherence. Some individuals are perceived as having well-integrated personalities, while others are seen as more scattered, less well organized; similarly, some groups are seen as being highly organized and tightly knit, whereas others are perceived as having less unity. This variation among groups, they noted, corresponds to what Campbell (1958) referred to as *entitativity* (and in fact, Campbell had specifically stated that groups vary in the extent to which they possess this property). Hamilton and Sherman proposed that, for groups that are perceived as being high in entitativity, the same assumptions would be made as are held about an individual target (organization, consistency, inferred dispositions, and resolution of inconsistencies). But at that point there was little published evidence relating to this argument.

Research following this analysis investigated several aspects of perceiving entitativity in groups. This work is summarized briefly here because several discussions of this literature are readily available (Hamilton, 2007; Hamilton, Sherman, & Castelli, 2002; Hamilton, Sherman, Crump, & Spencer-Rodgers, 2009; Hamilton, Sherman, & Maddox, 1999; Hamilton, Sherman, & Rodgers, 2004; Haslam, Rothschild, & Ernst, 2004; Lickel, Hamilton, & Sherman, 2001; Rothbart & Park, 2004; Sherman, Hamilton, & Lewis, 1999; Sherman & Johnson, 2003; Yzerbyt, Castano, Leyens, & Paladino, 2000; Yzerbyt, Corneille, & Estrada, 2001). In this section we highlight three lines of research that have developed.

Cues to Entitativity

One line of work has investigated the kinds of information on which people base their perceptions of group entitativity. These studies tested Campbell's ideas about the properties of an aggregate that induce perceptions of groupness (Castano, Yzerbyt, & Bourguignon, 2003; Lickel et al., 2000). Confirming Campbell's analysis in many respects, this research showed that groups are seen as more entitative, and people identify more with those groups, when there is high interaction among members; when the members share similar attributes, common goals,

and common outcomes; when group membership is important to the members; and when the groups have clear and identifiable boundaries. For example, Lickel et al. had participants rate a large number of groups on a series of scales assessing these variables, as well as the extent to which each group "qualified as a group" (a measure of entitativity). The groups rated were quite diverse and included a jury, a labor union, Jews, a family, people at a movie theater, roommates, Americans, people in line at a bank, and the cast of a play, among others. Lickel et al. found that several of the variables—interaction, importance, similarity, shared outcomes, and shared goals—were the primary predictors of entitativity. Moreover, consistent with Campbell's observations, the groups varied widely in the extent to which they were perceived as having entitativity.

Among these variables, similarity among group members initially took on particular importance, at least in the way questions were studied, perhaps because of its obvious correspondence with the work on perceptions of out-group homogeneity. More recently, its distinctive status has been questioned (Brewer, Weber, & Carini, 1995; Dasgupta, Banaji, & Abelson, 1999; Welbourne, 1999; Yzerbyt, Rogier, & Fiske, 1998; Crump, Hamilton, Sherman, Lickel, & Thakkar, 2010). We discuss the conceptual and empirical relationship between entitativity and homogeneity later in the chapter, in the section "Entitativity and Other Group Properties."

Perceived Group Types

A second line of work has explored the notion of different types of groups. These group types vary in their levels of entitativity and in their defining properties. A number of authors have proposed classification schemes for conceiving of types of groups for various purposes (e.g., Deaux, Reid, Mizrahi, & Ethier, 1995; Prentice, Miller, & Lightdale, 1994; Wilder & Simon, 1998). Research stimulated by entitativity has pursued this question more systematically. Lickel et al. (2000) empirically (based on participants' ratings) identified four types of groups: *intimacy groups* (family, friends, support groups), *task groups* (committee, jury, coworkers), *social categories* (males, Jews, gays), and *loose associations* (people waiting at a bus stop, people who like classical music). These groups differ in the extent to which they are perceived as having entitativity—decreasing entitativity in the order of group types listed above—and in the properties associated with them (Lickel et al., 2000; Pickett, Silver, & Brewer, 2002; Spencer-Rodgers, Hamilton, & Sherman, 2007). Specifically, intimacy groups are small, highly interactive groups that are important to their members and are unchanging over time. Task groups are also small and interactive, but

not as important to their members as are intimacy groups, and their members share common goals and outcomes. Social categories are very large and moderately important to their members, and changing one's social category membership can be difficult. Loose associations are low on all of these variables except that joining or leaving them is quite easy, compared to the other group types. Moreover, perceivers have different intuitive theories of these group types, about their properties, and about the rules by which relationships in them are governed (Lickel, Rutchick, Hamilton, & Sherman, 2006; Lickel et al., 2001; Rutchick, Hamilton, & Sack, 2008; Sherman, Castelli, & Hamilton, 2002).

One important issue facing virtually all studies identifying different types of groups is the question of whether the typology is in fact "real." That is, most studies have used ratings or sortings of groups as a basis for analyses of a group typology. The concern is that the typology may be a product of deliberative thought while completing these tasks but may not represent group types that are *spontaneously* used in group perceptions. Sherman et al. (2002) addressed this question by adapting the "who said what" paradigm (Taylor, Fiske, Etcoff, & Ruderman, 1978). Participants saw a series of photos of male persons, each identified by a group label. The group labels were either intimacy groups (family, friend), task groups (jury member, coworker), or social categories (French, Presbyterian). The photos were then shown again and the participants' task was to provide the group label for each person. Errors in the participants' responses could either be *within-group-type* errors (identifying a "jury member" as a "coworker") or *between-group-type* errors (identifying a "Presbyterian" as a "coworker"). On the basis of chance, the two types of errors should occur with equal frequency. However, within-group-type errors were significantly more frequent. Why would this difference occur? The fact that groups of the same type were confused with each other more often than were groups of different types indicates that participants had spontaneously used these group types in processing and storing the descriptive information in memory. Thus, these group types appear to have a status beyond simple strategies for rating groups on rating scales. Participants have cognitive structures for these group types that they spontaneously use in processing information about groups.

Perceiving Group Entitativity: Effects on Information Processing

A third area of research has investigated the cognitive information-processing consequences that follow from perceiving a group as high or low in entitativity. That is, groups vary along a continuum of perceived entitativity (Hamilton, Sherman, & Lickel, 1998), and a group's location

on that continuum—high to low—affects the nature of and extent to which information about the group is processed. For example, when perceivers learn information about high entitativity groups, compared with low entitativity groups, they make more online inferences about the group (McConnell, Sherman, & Hamilton, 1994), stronger inferences (Yzerbyt et al., 1998), more extreme judgments (Castano, Sacchi, & Gries, 2003), and spontaneously engage in social comparative judgments among group members (Pickett, 2001; Pickett & Perrott, 2004). Also, information (exemplar vs. abstract information) acquired about high entitativity groups is represented in memory in different form compared with information about low entitativity groups (Johnson & Queller, 2003), and people have better memory for information learned about high than about low entitativity groups (McConnell, Sherman, & Hamilton, 1997; Wyer, Bodenhausen, & Srull, 1984). Finally, a persuasive message received from a high entitativity group (compared to a low entitativity group) engages more systematic processing of that information, resulting in differences in attitude change as a function of the entitativity of the source group (Rydell & McConnell, 2005). All of these findings document a more general point that perceivers process information about high entitativity groups more systematically and they integrate that information more thoroughly than is true for information learned about low entitativity groups.

The research cited in these paragraphs all reflects an interest in understanding the cognitive underpinnings of perceiving group entitativity. The research has explored the use of external cues to infer entitativity, beliefs about different types of groups, the differing properties associated with different types of groups, and a variety of information-processing consequences in the ways that perceivers process information about groups. In these respects, this research seems to derive from the information-processing emphasis represented in Hamilton and Sherman's (1996) comparison of cognitive parallels and differences in perceiving persons and groups.

INTUITIVE THEORIES OF ENTITATIVITY

As noted earlier, research has empirically identified four distinct types of groups that differ in the extent to which they are perceived as possessing entitativity. Researchers have developed ideas about different *forms of entitativity* that pertain to different types of groups. In particular, Brewer, Hong, and Li (2004) proposed that people hold different intuitive "theories" of entitativity which, they postulated, people hold and apply in perceiving groups. They distinguished between two such

theories, which they called the *essence* and the *agency* theories of entitativity. These theories have different properties, diverging in their units of analysis, their assumptions about both intragroup consistency and intergroup similarity, and their expectations for group consistency and change.

Specifically, the essence theory of entitativity emphasizes the general attributes (traits, stereotypes) characterizing a group, focuses on similarity and consistency among group members in their attributes and behaviors, highlights clear intergroup distinctions in these regards, and views the group as being consistent across time. In contrast, the agency theory of entitativity is process oriented, emphasizing a group's goals; expects heterogeneity among group members; considers the group's relations with (rather than similarities or differences with) outgroups; and expects dynamic change in the group over time. Brewer et al. (2004) emphasized that the essence and agency conceptions orient the perceiver to different bases for judgments of group entitativity.

Consistent with this view, Ip, Chiu, and Wan (2006) demonstrated that physical similarity and coordinated action among group members trigger two separate routes to perceived entitativity. They orthogonally manipulated physical similarity and coordinated action among group members. The researchers found that manipulating the physical similarity of group members increased trait inferences about the group, that is, perceivers inferred that the group had stable, underlying traits. When the group members were physically dissimilar but were coordinated in action, perceivers inferred that the group members had common goals. These results support Brewer's assertion that different group properties could lead to different ways of thinking about groups.

Extending this line of reasoning, Rutchick et al. (2008) further developed the notion that groups can be construed in alternate ways, demonstrating that perceivers can judge the group's entitativity on the basis of different group properties. Their analysis rests not on differences in *types of groups* (as in Lickel et al., 2000) but in *ways of thinking* about groups. They distinguished between *categorical* and *dynamic* ways of thinking about a group (Wilder & Simon, 1998), a distinction not unlike Brewer et al.'s (2004) essence and agency theories. Rutchick et al. argued that any group can be construed in alternate ways. A group can be thought of categorically, with a focus on similarities and differences among group members, or dynamically, with a focus on its actions as a unit, its goals, and its achievements. If so, then the perception of a group's entitativity would rest on different properties, depending on how the group is construed. When thinking *categorically*, the similarities of and shared characteristics among group members would be important in

judging their existence as a category and hence these properties should predict judgments of the group's entitativity. In contrast, when thinking *dynamically*, the collective actions of the group, the interaction among members, their common goals, and the extent of group organization would be important and hence these properties should predict judgments of group entitativity.

To test these ideas, Rutchick et al. (2008) induced participants to think about groups with either a categorical or dynamic perspective and found that these two views weighted cues to entitativity differently. The researchers manipulated the participants' theories of entitativity by having them think of a group of bees either categorically, as members of a bee category with prototypic features, or dynamically, as members of a particular beehive, each having specific roles and tasks to achieve group agency. Subsequently, all participants read descriptions of several target groups (a social caste, a political party, and a group of students) and rated the groups on various cues to entitativity. Rutchick et al. (2008) found that perceivers in whom a categorical construal had been induced used group similarity as a basis for judging entitativity, whereas those in whom a dynamic construal had been induced used group action and interaction as cues to entitativity. Thus, different cues were predictive of the same target group's entitativity as a function of which way of construing had been induced. These findings are highly compatible with Brewer et al.'s (2004) theorizing about different intuitive theories of entitativity and their use in group perceptions.

Brewer et al. (2004) also noted the possibility that cultural context could affect the perceiver's view of group entitativity, perhaps by inducing specific ways of thinking about groups. Consistent with this view, Menon, Morris, Chiu, and Hong (1999) found that East Asians tended to assign as much or more autonomy to groups as they do to individuals. Participants from Hong Kong and the United States read a vignette about a maladjusted team member. The American participants attributed this scenario to the individual's disposition (characterizing him as a "free rider"), whereas the Hong Kong participants held the individual and his team equally responsible for the situation (the individual for being a free rider and the group for not incorporating him well). In other words, participants in Hong Kong saw the group as having as much autonomy as the individual team member. Menon et al. (1999) found a similar pattern in an analysis of newspaper accounts of corporate scandals from the United States and Japan: American news stories referenced individual characteristics more frequently, while Japanese news stories more frequently referred to characteristics of the organizations involved. This work supports Brewer et al.'s suggestion that cultural

context may induce certain ways of thinking about groups; specifically, that collectivists are more likely than individualists to adopt a dynamic view of entitativity. These points are further reinforced by Spencer-Rodgers, Williams, Hamilton, Peng, and Wang (2007), who found that members of collectivistic cultures are more likely to perceive groups as high in entitativity. It seems that perceived entitativity plays a central role in group perception, and this role may be strengthened by certain cultural contexts.

In sum, people appear to have different intuitive theories of entitativity. These theories imply different meanings of entitativity in different groups, they suggest different reasons for why a group is a group, and accordingly, they specify different bases for judging a group's entitativity. These theoretical developments are of fairly recent vintage and obviously warrant further investigation of their parameters and their implications.

ENTITATIVITY AND OTHER GROUP PROPERTIES

Brewer et al.'s (2004) distinction between the essence and agency theories of entitativity is important and has several implications, both conceptually and methodologically. As research on perceived entitativity progresses, it is important to distinguish the concept of entitativity from other related group properties. In this section, we briefly highlight some of these properties.

Similarity

In his 1958 article, Campbell proposed a number of different group properties that could serve as cues to entitativity. One of those was the perception of similarity, and Lickel et al. (2000) found that this was (among others) an effective cue to entitativity. Brewer et al.'s (2004) essence theory highlighted that entitativity can be based on perceptions of similarity among group members. Indeed, of all of the cues to perceiving entitativity, similarity has attracted particular attention, perhaps because it maps on well to the already existing literatures on perceptions of group variability and homogeneity. Yet Campbell was careful to delineate similarity as only one of several bases on which judgments of entitativity can be made, an assertion that others have supported in theory and research (Brewer et al., 2004; Castano, Yzerbyt, et al., 2003; Lickel et al., 2000; Rutchick et al., 2008). Yet some research has manipulated similarity among group members and referred to it as entitativity, or has measured participants' perceptions of similarity among group members and called it entitativity. Therefore, it is

important, both conceptually and methodologically, to differentiate entitativity from similarity.

Recent research by Crump et al. (2010) empirically demonstrated that entitativity and similarity can play different roles in perceptions of groups, including those of in-groups and out-groups. In two studies, they showed those in-groups are typically perceived as more highly entitative than out-groups, whereas out-groups are perceived as more homogeneous than in-groups. In a third study, Crump et al. manipulated either the entitativity of a group (e.g., whether group members pursued common goals) or the similarity of a group's members (e.g., whether they shared attributes and exhibited similar behaviors) and then presented a series of sentences describing behaviors performed by individual group members. Participants then rated the group on measures of entitativity and similarity. If entitativity and similarity were the same construct, then manipulations of them would have equivalent effects on ratings of the group's entitativity and similarity. Crump et al. found, however, that the entitativity manipulation only affected ratings of group entitativity and the similarity manipulation only affected ratings of group similarity. Thus, although perceived entitativity and group homogeneity are related constructs, they are separate concepts and can make unique contributions to group perception and intergroup phenomena.

Essence

Brewer et al. (2004) refer to their first intuitive theory of entitativity by the term *essence*. It is clear that, in their usage, this term refers to similarities in attributes and consistencies in behavior. Other usages of the same term carry much more extensive meaning (Gelman, 2003; Haslam et al., 2004; Rothbart & Taylor, 1992). This usage typically refers to a person endowing some object, person, or group with an inner essence such that the target of perception is viewed as a natural kind, a category (or category member) whose defining attributes are perceived as having their basis in nature and are inalterable. Hamilton (2007) has discussed the diverse perspectives in the use of this term in recent social psychological writing. In the present context, there is little in Brewer et al.'s discussion (see Brewer et al., 2004, Table 2.2) to suggest that an essence theory of entitativity includes the assumption that a group is a natural kind. Rather, their use of the term reflects similarities and shared attributes among group members as a basis for judging entitativity, rather than assumptions of category definitions as natural kinds.

Agency

Brewer et al.'s (2004) second intuitive theory of entitativity is referred to as an agency conception, capturing the perception of group entitativity as a group's ability to get things done and to have the means to accomplish its goals. It is here that Brewer et al.'s ideas truly become a view of "dynamic entitativity," as this conception highlights the importance of group organization, planning and coordination, and meaningful activity. In this view, groups are seen as groups because they are coherent, cohesive action centers: they are alive, they are doing, and they have purpose. In comparison, other conceptions and analyses of entitativity seem quite static. In our view, Brewer et al.'s recognizing that the perception of group entitativity can be based on these qualities is a valuable extension of past thinking and offers the opportunity to explore the interface between the perception of entitativity and actual group functioning.

We know of very little research investigating the role of a group's agency in the perception of its entitativity. In one of the early writings on how groups are perceived to be groups, Abelson, Dasgupta, Park, and Banaji (1998) advanced the argument that group activity both implies and is implied by group entitativity. That is, groups that are active, behaving in coordinated fashion, and pursuing shared goals are seen as entitative, and in turn, if a group is believed to be high in entitativity, it is perceived as being active and agentic. Spencer-Rogers, Hamilton, and Sherman (2007, Study 2) investigated the interrelations among several group-relevant constructs (entitativity, homogeneity, essence, role differentiation, agency, and stereotyping) in people's judgments of both task groups and social categories. All of these variables were significantly correlated with entitativity, but the highest correlations (for both task groups and social categories) were between agency and entitativity.

THE ROLE OF CONTEXT AND MOTIVATION IN PERCEIVING ENTITATIVITY

In the other 1996 publication referred to in our introduction, Brewer and Harasty (1996) adopted a broad perspective on understanding the roots and consequences of perceived group entitativity. These authors considered the roles of several group, intergroup, and motivational variables and then discussed implications of perceiving entitativity for several outcomes. For example, they proposed that a number of group properties, such as group size, majority or minority status, and group variability, can influence how the group is represented in memory—in terms of

individual exemplars or abstracted representations—with consequent differences in perceptions of entitativity. In addition, intergroup factors, such as intergroup comparisons of in-group and out-group, can influence perceptions of entitativity. They also discussed motives of the perceiver that bear on perceiving entitativity in a group (including in-group versus out-group differences). Finally, they explored implications of perceived entitativity for outcome variables such as intra- and intergroup differentiation, generalizations across group members, and stereotyping.

At the time their chapter was written, there was very little empirical evidence addressing these issues. There is now a growing body of literature speaking to these questions. Although the cognitive information-processing work cited above has been extensively reviewed and discussed, there have been few attempts to bring the other side of this literature together in a coherent fashion. In the following sections, we attempt to do so.

Entitativity and the Evaluation of In-Groups and Out-Groups

The focus of Campbell's (1958) analysis was on antecedents to perceiving entitativity—the stimulus cues that might be used to infer that a collection of people constitutes a group. As we discussed, much of the research stimulated by this analysis has investigated the largely cognitive antecedents of and information-processing mechanisms underlying such judgments. Brewer and Harasty (1996) observed that motivational variables may play an important role in driving perceptions of entitativity. In the years since their chapter, several lines of work have provided support for their observation.

Perceptions of group entitativity may have a polarizing effect on one's attitude toward a group, depending on whether the group in question is an in-group or an out-group. Some studies report a negative association between perceptions of out-group entitativity and evaluations of that out-group, whereas others have found a positive association between perceptions of in-group entitativity and in-group evaluations (Brewer & Harasty, 1996; Castano, Yzerbyt, et al., 2003). This difference may be due in part to the fact that one of the group characteristics that entitativity implies is group agency (Spencer-Rodgers, Hamilton, et al., 2007). If an out-group is highly agentic, outside perceivers may assume that the group's agency may pose a threat and could be used against their own group, which consequently would generate negative evaluations of entitative out-groups. On the other hand, if an in-group is highly agentic, its members would assume that the group's agency will be used to their advantage, which would lead in-group members

to positively evaluate entitative in-groups. This process may also lead one to place particularly high value on an entitative in-group and to strongly identify with it (an issue to which we will return later in the section "Entitativity and In-Group Identification").

Motivational Influences on Perceived Group Entitativity

Motivational Functions of Group Types   As discussed earlier, research has documented that perceivers differentiate among several types of groups, have cognitive representations of these types, and use that typology in processing group information (Lickel et al., 2000; Sherman et al., 2002). But *why* make, maintain, and use such group-type distinctions? Why wouldn't a basic differentiation between individuals and groups be sufficient to aid in our attending to and coping with information we confront in the social environment?

Johnson et al. (2006) argued that these differentiations are important because different kinds of groups serve different functions in people's lives. Some groups help fulfill the basic need for affiliation, some fulfill achievement-oriented needs, and others satisfy identity-related needs, such as self-esteem maintenance. Specifically, they proposed that intimacy groups (e.g., family, friends) are closely associated with affiliation needs, task groups (e.g., members of a jury, coworkers) are closely associated with achievement needs, and social categories (e.g., women, blacks) are closely associated with identity-related needs. These associations between group types and need fulfillment may be particularly pronounced when groups are highly entitative. In a series of studies—two studies using questionnaire measures: one using an implicit measure and one using a priming procedure—Johnson et al. provided evidence documenting these differential associations between group types and the psychological needs they serve.

Uncertainty Reduction   Perceptions of in-group entitativity may also serve to reduce subjective levels of uncertainty (Hogg, 2000, 2004). Uncertainty reduction theory postulates that humans have a universal need for certainty that stems from our desire to live in predictable and tractable environments (Hogg, 2000). When this need is not met, we search for ways to fulfill it. One way to achieve this aim is by attaching ourselves to groups of individuals that provide us with a greater degree of certainty. Groups that are high in entitativity are especially likely to provide this sense of certainty because they possess stable underlying properties, promote clarity in social representations, and facilitate the sense that one is part of a group that has a real existence.

Research evidence supports this account (Hogg, Sherman, Dierselhuis, Maitner, & Moffit, 2007; Sherman, Hogg, & Maitner, 2009). For example, in a study that utilized conservative and liberal political parties in Australia, it was found that, under conditions of uncertainty, people identified more strongly with highly entitative in-groups, whereas the strength of this association was reduced when such judgments were made under conditions of relative certainty (Hogg et al., 2007).

In a related vein, Yzerbyt et al. (2000) showed that mortality salience manipulations engender perceptions of in-group entitativity. This finding was originally discussed from a terror management theory perspective, in which perceptions of in-group entitativity were thought to act as buffers against death anxiety. However, this result could also be viewed from the perspective of uncertainty reduction theory. That is, a sense of uncertainty about one's own future could be alleviated by perceiving one's membership groups as high in entitativity.

De-Entifying Group Perceptions Motivation affects more than the perception of in-groups. Studies investigating the intersection of motivation and perceptions of entitativity allow for predictions to be made about how we perceive other types of groups as well. Pilialoha and Brewer (2006) used basic principles of balance theory (Heider, 1958) to predict when decision groups were and were not likely to be perceived as entitative bodies. Participants were presented with a positively valenced decision group (e.g., the student body court, the Supreme Court) and were informed about a ruling that the court had made on an issue about which the participants had already formed a relatively strong opinion. The court ruling either conformed to the participants' point of view on the matter or contradicted it. After reading about the case and the court's decision, participants' perceptions of the entitativity of the decision group were assessed. When the court and the participant had a common view, a balanced state existed. Pilialoha and Brewer postulated that balance can result in increased perceptions of entitativity of the target group. However, when the court and the participants' view differed, a state of imbalance existed, which, according to balance theory, would motivate the person to change some element to restore balance (Heider, 1958). One way in which this inconsistency could be resolved was through a process Pilialoha and Brewer called *de-entification*, whereby participants come to see the decision group as particularly low in entitativity. This is, in fact, what Pilialoha and Brewer found. When the court and the participant agreed, the court was seen as higher in entitativity than when the court and the participant disagreed. The process

of de-entifying the decision group not only restored balance but also influenced the perceived unity or coherence of the court. Thus, perceptions of a group's entitativity can be influenced by the perceiver's motivation to preserve or to restore balance.

In a related vein, supportive opinion groups are perceived as more entitative than oppositional opinion groups. Also, more extreme opinion groups tend to be perceived as particularly entitative. However, the precise motivations underlying these effects are not fully understood (Askevis-Leherpeux, 2005).

Entitativity and In-Group Identification

Research on in-group identification and perceptions of in-group entitativity highlights other ways in which an entitative group can be a resource for an individual (Castano, Yzerbyt, et al., 2003; Castano, Yzerbyt, Paladino, & Sacchi, 2002; Yzerbyt et al., 2000).

The relationship between entitativity and in-group identification would seem to be straightforward, though there has been surprisingly little evidence bearing on that relationship. Following social identity theory, we know that people's identities are in part derived from their group memberships. Therefore, it would be in one's vested interests to regard one's in-groups as "real" and viable groups that make a difference, certainly in one's own life. Further, it would seem that the more strongly one identifies with a group, the more one would want to believe in its viability.

This reasoning led Sherman et al. (1999) to propose that there should be a positive relationship between identification with an in-group and one's perception of that group's entitativity. They also suggested a simple extension of this reasoning. Each person belongs to many groups, and those groups vary in how important they are to the person and hence how much they identify with it. Therefore people should perceive variation in the entitativity of their own group memberships, and that variation ought to be correlated with the importance of those groups to the person. Lickel et al. (2000, Study 3) reported evidence consistent with this line of reasoning. Their evidence is correlational so no claims about causal direction can be made, although it seems plausible that the relationship may be bidirectional. That is, if people identify strongly with a group, they will be inclined to see it has high entitativity, and conversely, if one's in-group is a high entitativity group, then it seems well worth identifying with.

Castano, Yzerbyt et al. (2003) took a different, and experimental, approach to investigating this relationship. They conducted four experiments testing hypotheses that high levels of entitativity induce strong

identification, whereas low levels of entitativity reduce identification, with the in-group. European participants were presented materials designed to influence perceptions of an entitativity-relevant characteristic of the European Union (EU), and then their identification with the EU was assessed. In each of these experiments a different entitativity cue was manipulated (e.g., common fate, intragroup similarity, salience of in-group, boundedness of in-group). In each case they rated the extent to which they identified with EU. After being exposed to these entitativity manipulations, European subjects (those with moderate preexisting attitudes that were not fixed) reported higher levels of identification with the EU relative to control conditions. Thus, perceptions of in-group entitativity can lead to increased identification with the in-group.

As Brewer (1979) originally intuited, recent empirical findings from minimal group experiments suggest that perceptions of in-group entitativity can lead to positive in-group regard (i.e., valuing the in-group), even in the absence of meaningful contrasting out-groups (Gaertner, Iuzzini, Witt, & Oriña, 2006). What is responsible for these surprising effects? The answer may lie, in part, in how perceptions of group entitativity influence perceptions of group agency. As previously mentioned, perceptions of in-group entitativity may also be accompanied by perceptions of group agency and the belief that this agency will be used to one's advantage. Such a belief may lead one to identify more strongly with highly entitative in-groups.

ENTITATIVITY AND COLLECTIVE RESPONSIBILITY

Collective responsibility refers to the phenomenon that members of a group can be held responsible for the wrongdoings of another group member. If one group member behaves in an unlawful, immoral, or socially despicable manner, then other members of the group may, under certain conditions, be judged responsible (morally, socially, though not legally) for that person's actions. Lickel, Schmader, and Hamilton (2003) proposed that the extent to which collective responsibility occurs is a function of the perceived entitativity of the group. The more cohesive, interdependent, and tight-knit the group is perceived to be, the more other group members will be judged collectively responsible for a member's deviant behavior.

Lickel et al. (2003) examined the collective responsibility that participants assigned to groups that were somehow related to the Columbine High School shootings. Specifically, they found that both the killers' parents and their peer group (the Trenchcoat Mafia) were held as collectively responsible for the incident, and the extent of this judged responsibility

was correlated with the perceived entitativity of those groups. Lickel et al. also explored the possible thought processes that mediated the relationship between perceptions of a group's entitativity and collective responsibility. They found evidence for two such thought processes. First, an "inference of commission" occurred when participants assumed that other group members somehow encouraged or sympathized with the transgression. Second, an "inference of omission" occurred when participants assumed that other group members neglected to act in a way that could have prevented the transgression. Both these lines of thinking resulted in participants assigning more collective responsibility to entitative groups that were indirectly related to the Columbine High School shootings. Other research extending this work (Denson, Lickel, Curtis, Stenstrom, & Ames, 2006) has shown that collective responsibility can occur in judgments of transgressions in different types of groups (e.g., intimacy, task, social categories). Again, the extent of collective responsibility was directly related to the perceived entitativity of the group.

INTERGROUP CONSEQUENCES OF PERCEIVED ENTITATIVITY

Brewer and Harasty (1996) discussed the antecedents of perceived entitativity because they believed that it would play a role in several important outcomes of intergroup perception. They argued that perceived entitativity would affect cognitive representations of groups, thereby influencing a perceiver's judgments, evaluations, and behaviors toward different groups and individual members. Indeed, since their article was published, a growing number of researchers have extended this line of thinking by empirically demonstrating the pervasiveness of perceived entitativity in both person and group perception processes.

Aggression

Entitative groups not only foster greater collective responsibility but they also foster more retributive acts of aggression (Gaertner, Iuzzini, & O'Mara, 2008). Gaertner et al. (2008) created groups consisting of one participant and three confederates, and they manipulated the entitativity of the confederates. During the experiment the participant was rudely rejected by one of the confederates and was removed from the group. Later, the participant had an opportunity for retributive aggression by administering a loud noise to the three remaining group members. Consistent with predictions, the participant was much more willing to aggress against the three-person group, by using the noise

blaster, when the transgressor belonged to an entitative group compared to when the transgressor belonged to a nonentitative group.

Note that only one of the three persons rejected the participant, but the aggressive retribution was administered to all three group members. However, this only happened when the target group was high in entitativity and not when it was a low entitativity group.

Generalization

There is considerable evidence that people make spontaneous trait inferences (STIs) about an actor as they encode behavioral information (Carlston & Skowronski, 2005; Todorov & Uleman, 2002, 2003, 2004; Uleman, Saribay, & Gonzalez, 2008; Winter & Uleman, 1984). Crawford, Sherman, and Hamilton (2002) extended this work to investigate this process in the formation of conceptions of groups and how that process is affected by the perceived entitativity of the group. Using Carlston and Skowronski's savings-in-relearning paradigm, they demonstrated entitativity's role in STI and spontaneous trait transference (STT) processes. Participants learned about members of two groups consisting of eight members each. Participants were given information conveying that the groups were either high or low in entitativity. In the first phase of the experiment, each stimulus person was described by a trait-implying behavior. For each group, half of its members' behaviors implied one trait (e.g., aggressive) and the behaviors of the other half implied another trait (e.g., intelligent). In the second phase of the study, participants were shown the same individual group members, this time paired with the trait implied by their original behavior (the inferred trait) or the trait implied by other members of their group (the transference of a trait to a different group member). In the third phase of the procedure, participants completed a cued-recall task in which they were again shown the photographs and, for each one, were asked to report the trait that had been previously paired with it. The rationale is that recall of the paired trait may be facilitated by the trait inferences and transferences that took place during the first phase of the experiment (i.e., STIs and STTs from Phase 1 would facilitate target-trait "relearning" in Phase 2). These recall data showed that perceivers made more STIs for the members of the low entitativity groups than for members of high entitativity groups, whereas trait transferences (of a trait implied by one member's behavior to another member of the same group) occurred more frequently for high than for low entitativity groups.

These trait transferences have important meaning because they indicate that, for high entitativity groups, traits implied by one person's behavior become applied to all members of the group, and through

this process, a more general group impression is formed. Moreover, when trait transferences across group members are made, perceivers do not cognitively distinguish among group members. Thus, when perceiving high entitativity groups, group members become interchangeable through the generalization of traits to all group members. This is important because, ever since Allport's (1954) classic treatise, the generalization of traits to all group members has been a hallmark of stereotyping. Thus, for perceptions of high entitativity groups, Crawford et al. (2002) have demonstrated a cognitive process (STT) that produces the groundwork for stereotype formation.

Stereotyping

How, then, does entitativity relate to stereotypes of groups? Spencer-Rodgers, Hamilton, et al. (2007) investigated the role of entitativity, and other group-relevant concepts, in stereotyping. Participants rated four social categories (e.g., Latinos) and four task groups (e.g., juries) on scales assessing perceived entitativity, homogeneity, essence (boundedness, inductive potential, meaningfulness, stability, naturalness, and inalterability; Haslam et al., 2000), role differentiation (extent that there is role delineation among group members and behaviors typical of group members), and agency (ability to act collectively and effectively). They also rated the groups on 38 attributes, and for each group, eight of the attributes were (based on pretesting) stereotypic of that group. Analyses showed that perceived entitativity directly predicted stereotyping for each of the eight groups. In addition, although the other group-related variables also predicted (at least to some degree) stereotyping, mediational analyses showed that entitativity significantly mediated the effects of those variables—homogeneity, essentialism, role differentiation, and agency—on stereotyping. Finally, additional analyses showed that the relationship between perceived entitativity and stereotyping was *not* mediated by homogeneity, essentialism, role differentiation, and agency. These findings led Spencer-Rodgers, Hamilton, et al. to conclude that entitativity plays a central role in stereotyping and group perception more generally.

CONCLUSION

We began this chapter by referring to two papers published in 1996 (Brewer & Harasty, 1996; Hamilton & Sherman, 1996) which brought the concept of entitativity back into focus and stimulated a considerable amount of research on that topic. The accumulated evidence provides ample documentation that the perception of group entitativity has an

important bearing on the way groups are perceived. This research has investigated the cues people use to infer group entitativity, distinctions among different types of groups and how they differ in perceived entitativity, consequences of perceiving group entitativity on information processing, intuitive theories about different types of entitativity, the influence of contextual and motivational variables on perceived entitativity, and a variety of consequences of perceiving group entitativity for group perception. In sum, those two 1996 papers were a catalyst for generating new knowledge about an important and multifaceted aspect of group perception.

Despite this progress, there are still opportunities for extending this inquiry to questions that have not yet been adequately addressed. In this concluding section, we highlight some of those questions.

The research we have reviewed has addressed an impressive array of questions. Yet it is safe to say that nearly all of these studies have focused on the "mental experience" of entitativity in the perceiver. As such, the dependent variables in these studies have been judgments of groups, recall of information, response times to group-relevant stimuli, and other measures familiar to social cognition researchers. All this effort has been very informative. However, we have had very little to say about the effects of perceived entitativity on behavior. Numerous interesting and important questions pertaining to behavioral outcomes need to be investigated. When we perceive groups as being high versus low in entitativity, what differences are there in the behavioral functioning of these groups? How do they differ in organizational structure, leadership, communication patterns, and the regulatory norms and guidelines operating within the group? How do differences in perceived entitativity of a group affect the behavior of individuals, either members of the group itself or outsiders affected by the group? How does the perceived entitativity of groups affect the relations between groups, in either cooperative or adversarial contexts? Do the answers to these questions depend on the group types (intimacy, task, social category) involved? These questions remain relatively unexplored, yet seem to us to be important derivatives from the work we have discussed.

These concerns lead us to our second observation about needed future directions. We have learned a lot about how perceivers infer group entitativity from information (stimulus cues) about the group, and we know that groups vary considerably in the extent to which they possess (or at least are perceived to possess) these properties. An important (and as yet unanswered) question is, how do judgments of entitativity relate to the actual entitativity of those groups? And how well do the cues used in judging entitativity correspond (both in *which*

cues are used and in the *extent* to which they are used, i.e., weighted) to the importance of those same variables in defining a group's actual entitativity (see Hamilton et al., 1998; Moreland, 2004). Knowledge of the kinds of discrepancies that can occur between the *use* of cues and their *usefulness* would be informative about biases in judging entitativity (and other group properties). Moreover, we know (as reviewed earlier) that different intuitive theories of entitativity rest on different stimulus cues. What we are suggesting is that one could also determine the usefulness (validity) of those different cues as indicators of actual group entitativity.

Such questions may be particularly important when thought about in relation to the different types of groups (intimacy, task, social categories) identified in research and discussed earlier. Historically, "group perception" in social psychology has meant the study of perceptions of social categories (stereotypes), an obviously important topic as all of us both belong to and perceive many social categories. However, think about our daily lives. We spend much of our time perceiving, interacting with, and, indeed, living in intimacy groups (family, friends) and task groups (career-related work groups, noncareer-related organizations). Yet we know very little about how people perceive those groups, what determines variation in the perceived entitativity of those groups, and what difference those perceptions make. Developing our theme in the previous paragraph, we have the potential opportunity to learn about how perceptions of these groups correspond to the actual dynamics of those group types. There already exists vast literature on the nature and functioning of both intimacy groups (e.g., research on close relationships) and task groups (e.g., group dynamics research). Investigating the relations between how those types of groups are perceived and how they actually function would provide research bridging the gap between the perception of and behavior dynamics in groups.

Entitativity refers to the extent to which an aggregate of people is perceived to be an independent entity, to have real existence as a group. We do not identify with, attach importance to, or show favoritism toward a group, nor do we stereotype or discriminate against a group, unless and until that group is perceived as a meaningful entity. In that sense, the perception of group entitativity is a fundamental building block on which all other aspects of group perception are based.

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4

NEW EVOLUTIONARY PERSPECTIVES ON THEORY OF MIND

Linnda R. Caporael and Glenn D. Reeder

Premack and Woodruff (1978) conducted pioneering studies on the question of whether chimpanzees are capable of inferring the goals and intentions of other agents and, in the process, coined the term *theory of mind*. Although their work prompted a lively debate about what it is to be human, the emerging consensus is that nonhuman species are capable of only the most rudimentary types of mind reading (Penn & Povinelli, 2007). Thus, although Tarzan's pet ape, Cheeta, was capable of basic imitation, joint attention, and even understanding immediate desires and intentions of others, it would never think that Tarzan held a false belief about the location of the nearest watering hole. More advanced forms of *mind reading*—recognizing that other agents may have false beliefs, form sequences of plans, or hold metacognitions about themselves or others—are probably unique to humans (Malle, 2002; Penn & Povinelli, 2007).

Traditionally, attribution theory (Gilbert, 1998; Kelley, 1973), and the study of social cognition that followed on its heels (Wyer & Srull, 1984), painted a picture of a perceiver who sees behavior as a function of a person's traits and the surrounding situation (Reeder, 2009a). With few exceptions (Malle, 1999; Read & Miller, 1993), inferences about mental states such as beliefs and motives played no role in most of the dominant models of person perception (Gilbert, Pelham, & Krull, 1988; Trope, 1986). But this view has changed. The new chapter on mind

perception (Epley & Waytz, 2010) in the fifth edition of the prestigious *Handbook of Social Psychology* exemplifies this movement. Mind perception is distinctive because (1) it deals with "preattributional" processes or the degree to which a mind is present, and (2) it broadens the scope of social agents to "include any entity that acts interdependently with others" (Epley & Waytz, 2010, p. 4). This shift also brings social psychological theorizing into contact with exciting advances in neighboring fields such as developmental and comparative psychology, neuroscience, linguistics, philosophy, and evolutionary theory (Goldman, 2006; Iacoboni, 2009; Malle & Hodges, 2005; Mitchell, 2009).

Epley & Waytz (2010) point out that "mind perception" is a classical philosophical problem concerning we can know that others have minds when we have access only to our own. "Although people seem readily able to solve the classic philosophical version of the other minds problem, the philosophical version captures the main theme of all current research on mind perception…" (p. 499). In this chapter, we juxtapose theory and research on mind perception with an evolutionary-developmental perspective on how people might so readily able to read other minds. The next section presents basic processes and questions in theory of mind research, with a particular focus on a well-known debate about whether we know other minds because we can simulate them or whether we have innate capacities that supply knowledge or directives for gaining knowledge to understand, predict, and manipulate the activities of others. Following that, we briefly describe an evolutionary model based on the repeated assembly of *core configurations*, subgroups of face-to-face groups that recur in daily life, ontogeny, and (presumably) evolutionary history. With the background in those two areas, we attempt to put them into a productive alignment.

BASIC PROCESSES OF MIND READING

Despite its increasing currency, theory of mind has been defined in a variety of ways and overlaps with related concepts such as mind reading and folk psychology, also known as common-sense psychology and implicit theory among other names (Kelley, 1992). Theory of mind can be employed to denote (1) a capacity to reason about mental states (e.g., language acquisition and working memory capacity may contribute to higher level mind reading), and (2) the actual psychological processes that are involved in thinking about mental states (e.g., simulation of another person's mental states). This set of processes, specifically, is what we call *mind reading*. As well, theory of mind can refer to (3) a structured set of concepts (such as a database) about

mental states (Gopnik & Wellman, 1994; Nichols & Stich, 2003), and even (4) the area of research that is devoted to each of the above topics. The topic of folk psychology comes closest to the third definition, involving the layperson's accumulated sociocultural wisdom about the nature of human behavior (Lillard, 1998). Knowledge of this sort includes what Heider (1958) referred to as naive psychology, with a particular focus on mental concepts such as beliefs, desires, and intentions. In this way, folk psychology is both broader and narrower than theory of mind. Folk beliefs are broader in the sense that it incorporates not only cognitive (theory of mind-like) explanations of behavior but also potentially those that rely on motivational or strictly behaviorist explanations. Yet the folk psychology perspective is narrow in the sense that it does not adequately address the scientifically identified psychological *processes* of mind reading—including automatic processes (Dijksterhuis, 2010; Morris & Mason, 2009; Reeder, 2009b). For this reason, theory of mind and folk psychology are neither interchangeable nor opposing concepts.

USING IMPLICIT THEORY TO PREDICT OTHER MINDS

Modern theory of mind has a complex history beginning in the philosophy of science and mind. It starts with the quandary of "other minds." How can two people, whose thoughts are enclosed within separate skulls, ever know each other's thoughts? The literature on theory of mind offers two apparently competing solutions, which are of general interest in social psychology, a discipline uniquely qualified to serve as a hub of research in the area (Epley & Waytz, 2010; Goldman, 2006). One solution to the quandary is called the *theory-theory* (Gopnik & Wellman, 1994), according to which children and adults operate like scientists who acquire a set of implicit principles or theories about the workings of the physical and social world. In the process of learning about other minds, children acquire a knowledge base or folk psychology about the beliefs, desires, and intentions of others. In this acquired theory, people act on the basis of their desires, beliefs, and intentions (e.g., Jane buys a Starbucks latte every afternoon because she thinks it makes her more alert). In addition, the theory views people as capable of metacognition about the mental states of self and others (e.g., Jane doesn't know that I know she is such a loyal Starbucks customer).

Developmental psychologists have conducted most of the research on theory of mind, using children as participants. Many of these studies utilize a *false beliefs* paradigm (Wellman, Cross, & Watson, 2001). For example, participants may be told that Suzy left her iPod in her

backpack, but that her mother subsequently removed it (without Suzy's knowledge) and placed the iPod on its charging dock. Participants are then invited to guess where Suzy will look for her iPod. Although older children and adults will guess that Suzy will look in her backpack, children younger than 4 years of age tend to fail this test. How might the theory-theory approach explain the successful performance of older children and adults? This approach suggests that perceivers dip into their repository of folk psychological knowledge for an answer. In the case of the iPod, the homespun wisdom offers a simple prediction: People typically look for things where they last saw them. The implication, then, is that younger children fail the test because they have yet to acquire the necessary knowledge base.

USING SIMULATION TO PREDICT OTHER MINDS

The second theory of mind reading suggests that perceivers attempt to place themselves in another person's shoes and view the world from that new perspective. Consider the false beliefs task described above. A perceiver might ask herself, "If I was Suzy and I did not know that my mom moved the iPod, where would I look for it?" Mitchell (2009) suggests that such simulation is just one part of mind reading and that mind reading may also require that perceivers suppress their own current mental states (e.g., I know the iPod is on the charger, but Suzy does not) and decide if the target person is similar enough to warrant a simulation (e.g., I think I understand how kids like Suzy think). Indeed, people commonly report using a simulation strategy of this sort when they try to understand others (Goldman, 2006; Van Boven & Loewenstein, 2003).

It is worth noting that although the above example of simulation appears effortful, people can merely project their own beliefs, preferences, and motives onto others, without engaging in an effortful simulation (Reeder & Trafimow, 2005). Not surprisingly, such projection can be biased in a number of ways (Birch & Bloom, 2004; Epley & Waytz, 2010). For example, consider a study in which perceivers were first asked to engage in vigorous exercise before completing a social judgment task (Van Boven & Loewenstein, 2003). In the judgment task, the perceivers were told about a group of hikers who lost their way and were short on drinking water. Due to their previous physical exertion, these perceivers were particularly likely to assume that the hikers would be thirsty (as opposed to hungry). In other words, our own experiences can bias our efforts to understand another person's world.

It seems clear that mind readers are capable of both using abstract knowledge (theory) and performing a cognitive simulation. But what determines when each strategy is employed? A common answer has emerged from philosophers (Nichols & Stich, 2003), social cognition researchers (Ames, 2004), and neuroscientists (Mitchell, 2009). People tend to see others as either similar to or different from themselves and that determination underlies the strategy used for mind reading. To the extent that another person is seen as similar, the perceiver is more likely to rely on simulation.

For instance, suppose we are told that another person, similar in age and occupation to ourselves, shares our hobby of going boating on weekends. If our own reasons for this activity include wanting to relax and get away from the city, we will tend to think the other person has similar reasons. But when asked why a feral cat chases a mouse, it is unlikely that we simulate pawing in the underbrush or project our own ways of thinking on the cat (Nichols & Stich, 2003). Rather we rely on common knowledge that feral cats chase mice for food. This difference in mind reading strategy is reflected at the neural level. Mitchell (2009) reported that the medial prefrontal cortex is activated when people infer the mental states of similar others. This same area is implicated when people make inferences about themselves or engage in social versus nonsocial processing.

It seems reasonable that knowledge about the self would be used comparatively to predict others. At the same time, research and thinking on theory of mind could be refined, expanded, and productively reorganized with an extended evolutionary perspective.

NEO-DARWINISM IN EVOLUTIONARY PSYCHOLOGY

Evolutionary approaches to social cognition (Simpson, Schaller, & Kenrick, 2006) and theory of mind (Givón & Malle, 2002; Nichols & Stich, 2003) are hardly unique. They draw from a traditional gene-centered perspective on evolution (e.g., Dawkins, 1976; Wilson, 1975) and a model of "Machiavellian intelligence" (Byrne & Whiten, 1988). This neo-Darwinian model proposes that the large brains of humans and other highly social primates evolved to enable social expertise— the ability to manipulate others in the social group through exploitation and tactical deception, which leads to an evolutionary "arms race" of manipulation and countermanipulation among potential free riders. The model presupposes a high level of biological self-interest and individualism.

According to such models in both psychology and biology, individual self-interest has felt more "natural" as a theoretical starting point than sociality (Allport, 1924). From this neo-Darwinian perspective, solitary living is considered to be the primal condition. Group life is viewed as costly, so, "Without some positive advantage to grouping, groups will naturally disperse as individuals revert to the logically more primitive state of a solitary existence" (Dunbar, 1989, p. 701). There are two points we wish to make about this claim of fundamental self-interest. First, Dunbar is correct, as far as the logic of population genetics goes. But from the perspective of the phenotype, and in particular, the human phenotype, which is our object of investigation, the logic falls short. Humans are trapped into group living, which is a *solution* to the free rider problem (Brewer & Caporael, 2006). They are constrained by their morphology (e.g., their lack of natural defenses such as deadly incisors or tough hides, their long period of infant helplessness, and their slow bipedal mode of locomotion) and their ecology (e.g., their mode of subsistence extraction in combination with the carrying capacity of their habitat). Thus, humans are *obligately interdependent*: they are unable to reproduce and survive to reproductive age without a group even in technologically advanced regions. Without dismissing the significance of individual self-interest in group life, the central problem for understanding the biology of social life is coordination.

Second, the idea that people are motivated solely by their personal outcomes and behave more or less rationally in pursuit of their self-interests is common throughout the human sciences as well as in biology (Caporael, Dawes, Orbell, & van de Kragt, 1989). The currency (genes, money, status, a good conscience, etc.) may change, but the structure of the assumption remains the same. This common assumption is drawn from folk psychology (cf., Kitcher, 1985); yet, it can be viewed as merely one aspect of human nature compared with many other possible ethnopsychologies (Henrich et al., 2005; Lillard, 1998). Obviously, humans can be self-interested, greedy, brutal, and profoundly dishonest, but a language of biology couched in metaphors of genetic selfishness and altruism increases confusion between folk psychological and scientific thinking, especially for theories of mind. The "gene's eye view" of evolution is an impoverished view for the human case partly because it is too general. Genes are *below* the level of the organism, blind to the distinctions between social and asocial creatures. As Dawkins (1976) put it, organisms are survival machines and other survival machines are things that get in the way or can be exploited. They differ from rocks because they are inclined to hit back (p. 76). As a result, the same theory gets

applied to all species, oysters to humans, *given* what we know—or think that we know—about them. From a strict neo-Darwinian view, other minds are not at issue.

EVO-DEVO AND THE REPEATED ASSEMBLY OF CORE CONFIGURATIONS

In adopting neo-Darwinism, psychologists poorly understood evo-devo. It is one of a number of extensions of evolutionary theory that share a view of biological phenomena as being hierarchically organized (e.g., DNA, cells, tissues, organisms, groups), and organisms as the result of various necessary genetic and epigenetic resources (Oyama, 1985; Griffiths & Gray, 1994). These include genes and a broad range of epigenetic factors that range from RNA to nutrition, language environments, and social roles, all of which have different temporal scales and cycles of replication. The implications of these assumptions are only now beginning to come under analysis (Caporael, 2003; Jablonka & Lamb, 2005; Wimsatt & Griesemer, 2007).

A theoretical perspective for human evo-devo requires an account of recurrence and a model about the selective domain. In the standard evolutionary psychology model, genes account for all recurrence, and the selective domain is hunter-gatherer groups in the Plio-Pleistocene. In the evo-devo model that we use, recurrence results from the *repeated assembly* of multiple resources (including cultural and artifactual resources). The selective domains for uniquely human capacities are *core configurations* of face-to-face groups that recur in daily life, in development, and plausibly in human evolutionary history. Unlike the neo-Darwinian view, which rejects development as significant for its program to understand genetic transmission (Dawkins, 1982), from an evo-devo perspective, the development of bodies is essential for understanding how evolution occurs (Amundson, 2005).

A technical description of repeated assemblies is complicated but can be found in Caporael (2003). Briefly, repeated assemblies are characterized by recurrent relationships between an entity and its environment, heterogeneous resources, and hierarchical structural organization. For example, in the human case, mother–infant dyads are repeatedly assembled. "Having a mother" is a stable recurrent relationship between the infant and its caregiver. A variety of resources, including cultural beliefs about gender, genes, artifacts specialized for infants, and a speech environment contribute to phenotypic development. Some of these resources (e.g., genes, having a mother) are extremely stable— they are components that have persisted for eons. Other resources, such

as speaking a particular language, are still inherited, but are less persistent over time. Some components are *generatively entrenched* (Wimsatt, 2007), meaning that they have a long evolutionary history, occur early in children's development, and are crucial because later processes are generated through the earlier ones. For example, infants who are deprived of a social environment through abuse or neglect are at risk for failing to develop abilities that depend on their earlier achievements.

Caporael (1997) proposed that the face-to-face contexts of ancient foraging groups were the significant environment for the evolution of both group coordination and the mental systems that make coordination possible. Table 4.1 summarizes the broad outlines of this work. It proposes four face-to-face configurations—dyad, task group, band (or *deme*), and macroband (macrodeme)—organized as a nested hierarchy, or *demic structure* (Hull, 1988). The tasks listed are arguably characteristic of hunter-gatherers but have analogues in the activity patterns of modern peoples. For example, scientists frequently operate in core configurations of research groups (task groups), workshops (demes), and yearly association meetings (seasonal macrodemes). Groups (in the past and present) are not just aggregate of individuals but have recurrent

Table 4.1 Core Configurations

Core Configuration[a]	Group Size	Modal Tasks	Proper Function
Dyad	2	Sex, infant interaction with older children and adults	Microcoordination
Task group	5	Foraging, hunting, gathering, direct interface with habitat	Distributed cognition
Deme (band)	30	Movement from place to place, general processing and maintenance, work group coordination	Shared construction of reality (includes indigenous psychologies), identity
Macrodeme (macroband)	300	Seasonal gathering, exchange of individuals, resources, and information	Stabilizing and standardizing language

[a] Core configurations are a joint function of *both* size and task. Except for dyads, the group size numbers should be considered as modal estimates in a range roughly plus or minus a third of this number.

structural-functional properties. The recurrence results from the persistent dynamic relations among bodily form, modal tasks, group size, and ecological constraints from one generation to the next. For example, a group of five strangers in an elevator is an aggregation of individuals. Should the elevator get stuck between floors, however, the group promptly becomes a core configuration (a result of their shared fate), distributing perception, memory, and problem-solving skills.

The model sketched in Table 4.1 suggests an initial decomposition of functions as well as a dynamic large-grain or rough developmental sequence. Dyads would appear relevant to nonverbal forms of knowledge. Rhythmicity, gaze, pointing, and nodding might be examples for further investigation. Primates have a considerable repertoire of nonverbal signaling that facilitates complex behavior. Task groups of five or so people appear related to concrete understanding almost literally "on the ground," and macrodemes (which are collections of related demes) of about 300 people appear related to an overall sense of symbolically created "groupishness" or identity. Demes seem to be in the middle, serving as a clearinghouse for the outputs of other structures. Once evolved, a particular function can be used for novel purposes and can be extended through technological means. In Table 4.1, we see that shared reality, indigenous psychologies (folk psychologies), and group identities are coordinative functions in demes. Demes are sufficiently flexible that they can function across macrodemes and even in large-scale group structures. Complex social identity (Brewer & Gardner, 1996; Brewer & Roccas, 2001) illustrates this scalability: nested identities such as "actor," "Californian," and "American" contribute somewhat differently to commonly recognized American "indigenous" or folk psychology. Modern people also have cross-cutting identities enabling membership in multiple non-demic groups. Broadly speaking, we would expect human mental systems to correlate with the repeated assembly of core configurations. In the next section, we discuss how two functions in Table 4.1, microcoordination in dyads and folk psychology in the deme, might be related to an extended theory of mind.

BABY STEPS TOWARD A THEORY OF MIND

The emerging view in theory of mind (ToM) is that both folk psychology and simulation are important. However, for both perspectives, ToM begins with a model of the adult endpoint—"the logical, symbol-processing, modular computational machine" (Nelson, 2007, p. 52). Not surprisingly, minds are alienated or estranged from each other, just as they are in neo-Darwinian evolutionary psychology. From an initial

infantile state of estrangement, an individual must figure out how to anticipate the desires, intentions, and beliefs of others (Epley & Waytz, 2010). Consequently, research on the origins of mind is not organized around the infant as infant, but rather the infant as the precursor of the prototypical adult. Largely because it seems that there is no other option to explain the path from the alienated mind to the mind as computational machine, developmental ToM is organized around demonstrating complex, innate abilities in early infancy. Among these are the ability of infants to construct a mapping between adult bodies and their own (Meltzoff & Moore, 1977), or, in later childhood, the ability to understand another's point of view as evidenced in the false-belief task—the subject of over 1,000 published papers between 2000 and 2004 (Dunn, 2008). These abilities are thought to be innate, present at birth or early maturing. Their evolutionary history is frankly imaginary: "Imagine the biological benefits to the first of our ancestors who developed the ability to make realistic guesses about the inner life of his rivals; to be able to picture what another was thinking about and planning to do next" (Humphrey, 1984, cited in Baron-Cohen, 1995, p. 21).

An evo-devo approach can lead to different interpretations than those given in the usual accounts, yet one related enough to be considered an extended theory of mind. Broadly, human core configurations are repeatedly assembled in an developmental sequence. Infants develop microcoordination in dyads; as their coordination increases, they participate in workgroups (families), and through them, face-to-face groups (extended networks of kin, family friends, etc.). Rather than just independence, human development is increasing interdependence. There is a broadening of the range of social interaction accompanied by increasing requirements for reciprocity, skills, memory, social judgment and so on. The perspective that we suggest below is sketchy, but it suggests some of the elements that would be relevant for new perspectives on ToM: Parents simulate desires and intentions on *behalf* of the infants, consonant with local variations of folk psychology. This simulation scaffolds infants into membership in the human community. We discuss parents simulating infant minds and then turn to folk psychology.

PARENTS SIMULATING MIND

Newborns can only be in two settings. One is a dyadic setting where the newborn is being held, and the other is a solitary setting, when it is laid down. There may be activity of some sort around it, but its immature sensorimotor abilities are limiting for the newborn. Infants may

be held by older siblings or adults who are not the mother, but by and large, the main setting in the evolution and ontogeny of early infancy is the mother–infant dyad. The dyad is the most deeply entrenched core configuration; many repeated assemblies downstream depend on early development.

The newborn infant bears minimal resemblance to the adult that it will become. Its brain has one third of the cortical surface area that it will have as an adult (Hill et al., 2010), and its visual acuity, contrast, and field of vision is considerably limited (Farzin, Rivera, & Whitney, 2010). Objectively, the newborn is strange, unhumanlike—its form is out of proportion, it makes funny noises, it has a distinctive smell, and its movements are jerky and uncoordinated. Remarkably, the infant is not seen objectively, least of all by its parents. This gap between the "objective" (or embodied) infant and the "subjective" (or enacted) infant merits research from embodied and evolutionary perspectives precisely because the objective infant seems to lie beyond the bounds of common folk psychology. Caregivers attribute a subjective life to infants, simulating desires and intentions on behalf of the newborn without regard for its initial limitations. Such attributions, of a theory of mind so to speak, appear essential to bringing the infant into a human community.

Nursing is one of the first activities of the newborn infant. Babies suck in a burst–pause pattern that appears to be unique among mammals, which continuously suck without pause (Sroufe & Waters, 1976). The pause is something of a mystery: There is no physiological reason for pauses—the infant breathes and swallows as it sucks, there is no difference between bottle-fed and breast-fed infants in pausing, and although bursts of sucking get shorter as the infant gets full, the pause duration remains constant. There is no apparent function for pausing. Kaye and Wells (1980) undertook a naturalistic study of 52 mothers feeding their infants at 2 days and then 2 weeks old. Mothers explain the pauses by "mind reading." Infants are initially described by their mothers as "involved" with nursing, but then they get "lazy," "tired," or "stop paying attention," and thus stop sucking. So mothers begin to jiggle the babies to get their attention or to get them "back to work." However, the conditional probabilities calculated in the microanalysis of the comparing bursts of sucking and pauses show that jiggling does not serve the mother's intended goal. The infant does not start a burst of sucking until after the mother stops jiggling. There is no contingency between the initiation of jiggling and the infant beginning another round of sucking; not until the mother *stops* jiggling does the infant begin sucking again. Yet, mothers seem unaware that stopping jiggling leads to the next burst of sucking, or that they shorten their

jiggling over the next 2 weeks. Kaye and Wells argue that the endogenous rhythms and reflexes of the infant provide a framework for the temporal structure of turn-taking characteristic of dialogue (Kaye & Wells, 1980). The mother fits her behavior into the infant's rhythms in order to enact the infant's presumed autonomy.

Hendriks-Jansen (1996) extended this analysis and applied it to other instances where the infant's rhythms, reflexes, and emerging attention are exquisitely attuned to evoking the parent's simulation of the future infant mind. Many other animals show abilities for highly structured turn-taking as in mating or display behavior, but these are highly fixed and cue bound. Human turn-taking requires enormous flexibility over a range of circumstances. Not only language, but music, dance, and nonverbal expression (overt and subtle) are involved in the coordination of meaning and action. As a result of natural selection, the infant scaffolds the parent's attribution of the baby's own future intentionality. The burst–pause–mother–jiggle pattern plays no functional role in feeding. Its function is the initiation of a deeply entrenched component that serves as another cycle in the repeated assembly of the next generation of a ToM. The mother's specific interpretation (lazy boy, getting him back on the job, etc.) lies outside the activity patterns of turn-taking and constitutes the first steps that will bootstrap the infant into a cultural world with a variety of tools, scripts, and models (Shore, 1996) that he will make his own.

Between 6 and 12 months, there is considerable mimicry between adults and infants (Jones, 2007, 2009)—almost entirely on the part of adults, who are 7 to 10 times more likely to mimic infants than vice versa. Adults respond to the activity of the infants, inserting their own imitative behavior when the opportunity arises. As infants produce higher frequency and variability of behavior, mothers imitate them even more, and such games are often played with squeals of delight, maternal pride, and pleasure. Yet, mothers believe that their infants are imitating them, although the probability of matches between infant and mother behavior does not exceed chance expectations until around 12 months of age (Lewis & Rosenblum, 1974).

This microanalysis approach to infant development appears to contradict the widespread agreement that infant imitation is innate and observable from birth (e.g., Meltzoff & Moore, 1983). A critical review of the literature (Ray & Heyes, 2011) indicates that newborns less than 6 weeks old do match tongue protrusion, but they do not imitate other actions. Moreover, newborns protrude their tongues to other stimuli including flashing lights or dangling toys, suggesting that a range of stimuli elicit tongue protrusion (Jones, 2009). Jones (2007) also challenged the

widespread view that imitation is innate in a longitudinal experiment with 162 infants tested at 2-month intervals between the ages of 6 and 20 months. In this unique study, which controlled for spontaneous production of gestures, parents were guided in modeling for their babies eight behaviors previously claimed to be imitated in early infancy. Jones found that 6-month-old infants failed to reproduce any of the gestures at appreciably above-chance levels and that four of the eight gestures failed to even be observed at this age. Over successive age levels, infants come to imitate the gestures, beginning with two gestures associated with sound (vocalizing "aah" and tapping the table at 8 and 12 months old, respectively). The remaining gestures emerge at different ages, but follow similar developmental trends. Notably, infants did not mimic tongue protrusions above the level of spontaneous tongue protrusions until they were 18 months old, which is consistent with the idea that above-chance matching of newborn tongue protrusion is an evolved activity pattern that scaffolds and stimulates adult attention. It drops out at 6 weeks and then appears again as "true imitation" at 18 months.

Imitation does not appear as an innate whole. As we would expect from an evo-devo perspective, it seems that infants repeatedly assemble imitation, generation to generation, from different kinds of knowledge (e.g., the associations with sound, examination and experimentation with hands and other parts of the body) over a drawn out course of development scaffolded, initially just from endogenous activity such as tongue protrusion, mouth opening, and gaze, and later by smiles, mimicry, and motion, which is in turn elaborated, stimulated, elicited, and guided by adult imitation, attention, praise, and positive affect as adults simulate infant desires, intentions, and (later?) beliefs.

FOLK PSYCHOLOGY

In philosophy's theory of mind, the question about folk psychology is whether it can serve as an adequate scientific (or scientific-like) theory for the prediction of beliefs, desires, and intentions. Its origins, acquisition, or evolution are not germane to the discussion about its theoretical status. From the evo-devo perspective proposed here, folk psychology might be extended to dyadic interaction, but its primary function is the coordination of roles, activities, and identities within and between groups. (Coordination has been mistaken as a claim about altruism, cooperation, or prosociality. Its use is intended as a neutral descriptive term: even the most heinous violence between groups requires considerable coordination for attack and defense.) Coordination can take many forms, but social identity and moral obligations are two salient

ones that can evolve in face-to-face groups, yet also be extended to symbolic groups (Caporael, 2001; Prentice, Miller, & Lightdale, 1994). For lack of a better scenario, we assume that folk psychology evolved with language, symbolic artifacts, and narrative capacities and that a large part of activity in face-to-face group is negotiating status and obligations. However, a much better scientific understanding of folk psychology developmentally and cross-culturally is needed to narrow the scope of possibilities for hypothesizing its evolution.

More as an organizing device than a claim, we suggest three main divisions for folk psychology. One is based on morphology—the physical form and functioning of the body—which we refer to as FP-E, or folk psychology (embodied). FP-E gives us the possibility of "sharing" other minds as well as translation across cultures despite fatal or perfidious misunderstandings. We have some sense of this point—shared bodily experience translated into psychological experience—from the cross-cultural literature on expression and emotions (Ekman et al., 1987; Sauter, Eisner, Edman, & Scott, 2010). However, the connection of body and mind to folk psychology would be better illustrated by research on embodied cognition (Lakoff & Johnson, 1980). For example, people create meaning in the weaving between interpersonal warmth and various sensory factors (e.g., holding warm coffee, Williams & Bargh, 2008, or standing in close proximity, IJzerman & Semin, 2010). Research on heuristics and biases, the illusion of conscious will, and even eyewitness testimony also fall into this category. The phenomenological experience of feeling warm toward another person or knowing the robber in a police lineup is real. Nevertheless, manipulations in the laboratory tell a different story, one that parallels the case of adult simulation of the infant's mind, which also feels "real" when the newborn copies a tongue protrusion or fixes its gaze on its father. We suggest that the body and its sensorimotor features constitute a biological framework from which shared experience is constructed, narrated, negotiated, and realized and through which infants are endowed with the culturally understood "human nature" of its community.

A second division of folk psychology that infants must eventually master is concerned with settings (FP-S) and includes at least two sorts of experiences. One is simply routinized institutional behavior, which has well-known scripts within a culture (Schank & Ableson, 1977). In many cultures, including American culture, much of public life (e.g., eating at a restaurant or going to the dentist) is governed by routines that we often begin learning in childhood and, as adults, watch as familiar routines change over time, usually in a plank-by-plank basis rather than as an overhaul of the entire ship of the institution. The

second type of experience relevant to FP-S involves activities and arti-facts. If Seth goes to the basement and sees his daughter with a nail and a piece of wood in one hand and a hammer in the other, he assumes—almost always accurately—that she is going to pound the nail into the wood. Psychology has a rich literature, including patterns of errors, on attribution causes to dispositions rather than to perception–action dynamics in settings and situations that can cause and shape behavior (Dijksterhuis & Bargh, 2001).

The last division we might call the private mind, or FP-P. This appears to get the bulk of attention for mind reading, although it can be just as easily cast as what's left over from the various public ways that folk psychology is institutionalized. The assumption that private minds are fundamental seems to arise from adult experience. Infants have private worlds of experience, too, but their experience is constantly undergoing change as their sensorimotor systems and awareness are more finely attuned in development. Surely the difference in experience between adult and infant is far closer to the quandary of other minds than the adult experience of ordering dinner in a restaurant. The private experi-ence of the infant may not lead in any continuous way to the private mind of the adult. Moreover, we might expect that the psychology of FP-P has undergone more dramatic changes over historical time than have other dimensions of folk psychology. For example, humans have moved from oral cultures of experience to the private consumption of experience in books.

CONCLUSION AND IMPLICATIONS

Too often, ToM research focuses on the capacities of the singular infant. The relationship that infants have with caregivers is often shad-owed in the background. Our evo-devo approach directed attention to the embodied, situated activity of organisms in their environments. Infancy seems especially odd when it gets this sort of attention. The core configurations model suggested that dyads and demes/macro-demes would be important for an extended ToM. This was a fruitful exploration. From our evo-devo perspective, infancy looks like a ful-crum in the repeated assembly of human organisms and the first link in the reassembly of culture for a succeeding generation. Infants are born into a "community of other minds" (Nelson, 2007, p. 209). While it is hard to describe this from the point of view of the infant's experience, it is just as difficult to claim that the infant mind is alienated, estranged, or faced with a quandary. Much of infancy seems to be about mutual activity in a shared social psychological space where the low-level

activity patterns of the infant such as pauses during nursing or tongue protrusion stimulate not only the attribution of desires and intentions but also talk, smiles, glee, persuasion, and other human engagement. That this engagement is deeply entrenched and crucial to the infant's development is suggested by scientific reports of institutional deprivation in orphanages (Rutter et al., 2010). The infant's mind is neither alienated nor is it capable of independently developing its own mind reading competence.

We agree with Bruner's (1990) description of folk psychology as an "instrument of culture," and with his view that mind is constituted by culture; it is not a naked product of biology or physiological maturation as most theorists imply. Intentional states and experience are meaningful only through participation in the institutionalized meanings of culture. Folk psychology, Bruner writes, is "a set of more or less connected, more or less normative descriptions about how human beings 'tick,' what our own and other minds are like, what one can expect situated action to be like, what are possible modes of life, how one commits oneself to them, and so on. We learn our culture's folk psychology early, learn it as we learn to use the very language we acquire and to conduct the interpersonal transactions required in communal life" (Bruner, 1990, p. 35). Parents, friends, and older children scaffold the active developing infant into this domain, starting with the location of birth, who helps in the birth, how the baby is wrapped, and when and how it is fed and by whom—and that is just the beginning. (One of us was startled to see during a hospital visit that the nursery had a group of newborns with pink bows Scotch taped to their heads. Without guessing or analysis, these were obviously the baby girls.) In considering the results of that "instrument of culture," we divided folk psychology into three realms dealing with morphology, settings, and the private mind. We hope this expanded perspective encourages collaboration between biologists, historians, psychologists, and related disciplines to understand the evolution and development of these different types of folk wisdom. (An emerging precedent is the new center for the study of the history of emotions at the Max Planck Institute [http://www.mpib-berlin .mpg.de/en/forschung/GG/index.htm].)

One of the apparent puzzles in our analysis is how task groups are involved in the evo-devo of ToM. While there are certainly lots of different reasons for people to gather in groups of four to six individuals, the evolutionary hypothesis for this configuration was posited as one that had direct contact with the habitat, with one of its functions being the distribution of cognition. Modal tasks might be interpreting animal

signs on the ground or data from an experiment. In other words, this core configuration is about problem solving. Bruner is helpful here as well. He argues that logicoscientific thought operates on distinctly different principles than folk psychology, which takes the form of narrative (Bruner, 1986). A well-formed argument is evaluated in terms of rules of logic, science, and mathematics; a narrative is evaluated in terms of its ability to make sense and reflect on human or human-like intentions and experience. Logical modes are expected to lead to factual understanding; narrative modes are expected to be life-like to provide different views of subjectivity.

In our extension of the core configurations model to theory of mind, we focused on dyadic interaction between infants and their mothers. In this domain, recurrent aspects of morphology, settings, and issues of privacy are repeatedly assembled and shaped by culture. However, we also showed that other structures of interaction are involved. In particular, the mother (and later other family and community members) brings a set of culturally derived expectations to ongoing interactions with the infant. In addition to the familiar claim that the road from infancy to adulthood is one of increasing (bodily) independence, we suggest that it is also one of increasing (social) interdependence, as the infant is interactively drawn into a widening circle of core configurations.

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II

Social Identity and Intergroup Relations

5

SOCIAL IDENTITY COMPLEXITY

*Theoretical Implications for the Social
Psychology of Intergroup Relations*

Katharina Schmid and Miles Hewstone

Multiple-categorization approaches are receiving ever more attention in social psychological theory and research on intergroup relations. The basic premise underlying such approaches is that individuals typically belong to and identify with multiple social groups. Moreover, these approaches underline the notion that multiple social categories can become salient simultaneously, affording individuals the capacity to attend to and make judgments about others based on their multiple group memberships. This is, of course, not a new idea. Social psychologists have long recognized the importance of multiple categorization processes for understanding intergroup relations (see Crisp & Hewstone, 2007, for a detailed review), as have scholars in other fields (e.g., Murphy, 1957). What *is* new, however, is the notion advanced by Marilynn Brewer and colleagues that individuals differ in the way in which they incorporate their multiple group memberships into their sense of self. Individuals may thus perceive their multiple social categories in more or less complex and differentiated ways, based on the subjectively perceived interrelationships between their multiple in-group identities (Roccas & Brewer, 2002). Importantly, the extent to which individuals differ in *social identity complexity* is said to have important consequences for intergroup perception and attitudes. The social identity complexity concept thus extends previous theorizing on multiple

categorization processes in important ways since it focuses much more explicitly on multiple *self*-categorization processes than do other multiple categorization approaches.

In this chapter, we describe the concept of social identity complexity and discuss its contribution to the social psychological understanding of multiple categorization processes, as well as its involvement in shaping intergroup relations. We begin with a brief definition of the theoretical concept, which we follow with a discussion of the merits of social identity complexity for understanding intergroup relations. We place this discussion of how and why social identity complexity tends to positively covary with intergroup perception and attitudes in the wider realm of social psychological theory and research on multiple categorization. We then move to a consideration of potential antecedents of social identity complexity. We focus on two determinants of social identity complexity in particular, the diversity of the social environment and one's social experiences, and identity threat, especially distinctiveness threat. In so doing, we link four research areas covered by Marilynn Brewer in her distinguished career as a scholar of intergroup relations: intergroup contact, optimal distinctiveness, crossed categorization, and social identity complexity. We end by considering the applied relevance of social identity complexity and the extent to which it may be perceived as a means for improving intergroup relations and drawing some general conclusions.

COMPLEX MULTIPLE IN-GROUP PERCEPTIONS AND CONSEQUENCES FOR INTERGROUP RELATIONS

Theory and research on multiple categorization rest on the premise that individuals are able to categorize self and others in terms of multiple social categories. It is assumed that multiple categories may become salient at the same time, whereby individuals are able to attend to and make use of these multiple categories simultaneously. The logical consequence of this fact is that individuals are afforded the cognitive capacity to perceive others in a more differentiated manner, and more often than not self-definition in terms of such multiple social categories is associated with more positive evaluation of out-groups (see Brewer, Ho, Lee, & Miller, 1987; see Crisp & Hewstone, 2007, for a detailed review). Research into crossed categorization, for example, highlights that many social categories are orthogonal and may crosscut each other. Hence, if two existing social categories are crossed to form a set of four new category combinations (i.e., a "double in-group," a "double out-group," and two partial "in-group and out-group" category combinations), it is

assumed, and has been experimentally demonstrated, that individuals are able to perceive others in terms of these more differentiated category combinations (see, e.g., Crisp & Hewstone, 2000; for meta-analytic reviews, see Migdal, Hewstone, & Miller, 1998; Urban & Miller, 1998). Crossed categorization thus holds potential for the reduction of intergroup discrimination and aids in the generation of positive intergroup perceptions, albeit more typically so if certain conditions are met (see Urban & Miller, 1998, for an overview of moderators).

Actual versus Perceived Category Overlap

The starting point for Roccas and Brewer's (2002) conceptualization of social identity complexity is similar to that of crossed categorization, namely that many social categories in the real world naturally cut across each other; in fact, they differ in the extent to which they do so. In other words, it is possible to perceive the many and varied social categories individuals belong to as differing in the extent to which they overlap. For example, since a large proportion of British people are Christian, there is relatively high overlap between these two social categories. But a relatively smaller proportion of British people are Jewish, thus reflecting relatively lower overlap.

Moreover, one might assume that categories do not ever fully converge, unless, of course, they are nested entirely within a superordinate category. For example, even though most midwives are female, there are some males in this profession also. Yet since, for example, all Sunnis are Muslim, these particular social categories overlap completely, that is, they fully converge. These latter, fully convergent categories reflect, to some extent, the hierarchical nature of some social categories, whereby categories may be perceived as subordinate categories nested within a superordinate, common in-group. Such completely overlapping categories are considered (among others that do not fully overlap but are hierarchically ordered nonetheless) in the common in-group identity model (Gaertner, Dovidio, Anastasio, Bachman, & Rust, 1993) or the dual identity model (see Gaertner & Dovidio, 2000). They are, however, of less relevance for a discussion of social identity complexity.

What we have just portrayed are exemplars of *actual* or *objective* category overlap. Yet this actual overlap may, of course, not necessarily be mirrored in individuals' *perceived* or s*ubjective* perceptions of overlap. Thus, there may, in fact, be considerable discrepancy between the actual and perceived overlap of categories. For example, while it is certainly the case that one can be black and Italian, and indeed there are a number of black Italians, racist supporters of the Italian club Juventus have abused the Inter Milan player Mario Balotelli with a chant that

"A negro cannot be Italian" (reported in *The Observer*, 13 December, 2009). This offensive chant clearly rejects the notion of overlap between the categories "black" and "Italian," despite the fact that Balotelli was born in Italy and that he has been a star player in Italy's under-21 national team. It is these subjective perceptions of category overlap, and to some extent the discrepancy between actual and perceived overlap, that are captured in the concept of social identity complexity.

Social Identity Complexity

Social identity complexity refers to the perceived interrelationships among individuals' multiple social group memberships, that is, their multiple in-groups. Hence, it defines individuals' more or less complex cognitive representations of their multiple social identities (Roccas & Brewer, 2002). Individuals may thus perceive their multiple in-groups as either largely overlapping or not overlapping. In the case of overlapping in-groups, only individuals who share membership on the sum of these identities are regarded as fellow in-group members, while people who share none, or only a few, of these identities are regarded as out-group members. Alternatively, individuals may be aware of the potential non-overlap between categories, and thus acknowledge that others do not always share in-group membership on all of these self-descriptive categories, that is, that not all their multiple in-groups overlap (Brewer & Pierce, 2005; Roccas & Brewer, 2002). Although the former case reflects relatively lower and the latter case relatively higher social identity complexity, one should think of social identity complexity as being continuous, with variations in complexity ranging from low to high.

Two basic requirements need to be met for an individual to be considered relatively high in social identity complexity. First, one needs to be *aware* of the existence of multiple categories, that is, one needs to be attuned to the fact that one's multiple in-groups actually constitute distinct social categories. Second, one needs to *recognize* that since one's multiple in-groups constitute distinct social categories they need not, indeed in most cases cannot, completely overlap. Individuals who perceive their multiple in-groups as constituting a relatively exclusive in-group, in which others are perceived as in-group members only if in-group membership is met on all convergent multiple category dimensions, fail to meet these basic requirements. To exemplify, if a female, Christian British student considers only her fellow students who are also female, Christian, *and* British as part of a largely convergent exclusive in-group, we may conclude that she is relatively lower in identity complexity than a similar student who is able to distinguish between these multiple in-groups.

Social identity complexity may be conceptually divided into two distinct but related subcomponents: overlap complexity and similarity complexity. Overlap complexity most readily relates to the examples of actual versus perceived overlap mentioned above. It thus refers to the perceived quantifiable boundaries between categories, that is, the subjective perception of actual overlap in numbers or proportions between different categories. Similarity complexity, on the other hand, refers more to the perceived similarity between categories, that is, to the perceived defining, prototypical or evaluative properties of categories. Similarity complexity, thus, concerns the perceived similarities or differences in meaning associated with multiple in-groups, for example, whether an individual perceives being a member of one particular in-group as meaning very much the same as being a member of another in-group. To illustrate, a New York Democrat might perceive high overlap between the categories "New Yorker" and "Democrat" (e.g., he or she thinks that most New Yorkers are Democrats), as well as high similarity between the two categories (e.g., he or she thinks that the typical New Yorker is very similar to the typical Democrat or that being a New Yorker means very much the same as being a Democrat). Consequently, we might regard this individual as being relatively low in both overlap and similarity complexity, that is, as low in social identity complexity in general. Conversely, an individual showing less perceived overlap and similarity would be characterized by relatively higher overlap and similarity complexity, respectively, that is, as relatively higher in social identity complexity.

Social Identity Complexity and Out-Group Attitudes

Brewer and colleagues have argued that social identity complexity should positively covary with out-group attitudes (Brewer & Pierce, 2005; Roccas & Brewer, 2002), for reasons similar to those underlying the notion of crossed-categorization. Doise's (1978) category differentiation model predicts that once social identity becomes salient, this gives rise to intergroup discrimination whereby intragroup differences are attenuated and intergroup differences accentuated. This process provides the cognitive basis for in-group bias to occur (see also Vanbeselaere, 1991).

In the context of multiple crossed categories, this general tendency to minimize differences within but maximize differences between categories should be reduced or even eliminated, given that individuals rely on more complex category combinations. Moreover, when multiple categories are salient, individuals are thought to rely less on single in-groups for bolstering self-evaluation and self-esteem

(see Vanbeselaere, 1991) or satisfying opposing needs for assimilation and differentiation (Brewer, 1991; see also Leonardelli, Pickett, Joseph, & Hess, Chapter 6, this book; we return to a more detailed description of optimal distinctiveness theory at a later point in this chapter). Moreover, when individuals rely less on a single category, the likelihood for the occurrence of intergroup discrimination is lower, while the likelihood for positive intergroup attitudes becomes greater. Since social identity complexity refers to multiple crosscutting identity structures and seeks to describe individuals' subjective varying perceptions of such crosscutting categories, one may assume that a similar logic applies. If individuals are able to perceive their multiple in-groups in a less exclusive, but more differentiated and complex manner, they should also be able to recognize the complexity surrounding others' multiple category memberships. In short, individuals high in social identity complexity should be aware of the fact that others may be ingroup members on some dimensions, but out-group members on others. This heightened cognitive complexity should then manifest itself in more positive intergroup perceptions and attitudes.

Despite its relatively recent introduction to social psychological theory, the notion that social identity complexity tends to be positively associated with out-group attitudes has already accrued consistent empirical support in the few studies that have been conducted to date. In a number of preliminary studies in the United States and Israel, Roccas and Brewer (2002) asked samples of American and Israeli university students to rate the perceived overlap and perceived similarity between a number of predefined groups (for U.S. students, the categories used were white, American, college students, and religious denomination; for Israeli students, the categories used were secular, Israeli, college students, and Jewish). In the U.S. sample, the authors found that individuals who were higher on overlap complexity also scored significantly higher on measures of tolerance toward racial or religious out-groups. The nature of the relationship between similarity complexity and out-group tolerance was similar, yet did not reach statistical significance. Similarly, in the Israeli sample, the authors found that both overlap and similarity complexity were significantly positively associated with willingness to engage in and acceptability of contact with immigrants from the former Soviet Union. In a further study involving 210 Ohio citizens, Brewer and Pierce (2005) found social identity complexity (measured by means of an overlap complexity measure) to be significantly associated with a range of social attitudes and tolerance measures, including, for example, greater support for multiculturalism and affirmative action and feeling thermometer ratings of specific out-groups.

With regard to our own research program, we carried out two survey studies that allowed us to examine the relationship between social identity complexity and out-group attitudes in Northern Ireland (Schmid, Hewstone, Tausch, Cairns, & Hughes, 2009), a setting in which categorization and identification processes are pivotal to the dynamics of conflict. Although the conflict in Northern Ireland is, broadly speaking, a conflict between those who wish to see Northern Ireland united with the Republic of Ireland (predominantly Catholics) and those who want Northern Ireland to remain part of the United Kingdom (predominantly Protestants; Moxon-Browne, 1991), it is often described as a conflict between the Catholic and Protestant communities. Although there remains extensive segregation between these communities, they are more accurately referred to as ethnopolitical than religious groupings. Moreover, the vast majority of people in Northern Ireland readily identify with being Catholic or Protestant, for which reason the typical focal categories are those surrounding ethnopolitical group membership. There does exist, however, a range of national (British or Irish) categories, that are also commonly endorsed as self-descriptive, and that play an equally central role in the conflict (see, e.g., Trew & Benson, 1996). Thus, there is room to explore the notion of social identity complexity in this context.

In our first study, involving a sample of 221 students at two Northern Irish universities, we confirmed a positive relationship between similarity complexity and tolerance and a negative relationship between similarity complexity and in-group bias. Our second study, based on a sample of 1,948 adult respondents, also yielded a negative relationship between both similarity and overlap complexity and in-group bias, providing further support for the hypothesized relationship between social identity complexity and out-group attitudes, as put forward by Roccas and Brewer (2002). Social identity complexity has also been found to correlate not only with explicit but also with implicit attitude measures. Miller, Brewer, and Arbuckle (2009) found that overlap complexity correlated significantly with scores derived from the affect misattribution procedure (see also Payne, Cheng, Govorun, & Stewart, 2005).

It is especially important to keep in mind that social identity complexity pertains much more explicitly to multiple *self*-categorization than does the crossed-categorization approach, or indeed most other research into multiple categorization, which focuses more on multiple categorization of others in functional relation to the in-group. To clarify, most multiple categorization perspectives seek to explain changes in intergroup differentiation by making salient both individuals' and out-group members' multiple category memberships and/or attuning

them to the shared category memberships of the in-group and the out-group. Positive covariation between multiple categorization and out-group attitudes is, thus, limited to the in-group versus out-group categories under investigation.

Social identity complexity, however, limits its focus to multiple self-categorization of individuals, and therein, we believe, lays its strength in aiding understanding of intergroup phenomena. It is assumed that cognitive complexity surrounding one's own multiple in-groups should in and of itself evoke more differentiated intergroup perceptions. Importantly, such more differentiated intergroup perceptions should not only be limited to the corresponding out-group categories (although they are likely to be stronger for these). In other words, social identity complexity is thought to be associated with greater tolerance more generally, and not only in relation to the categories in question. A striking example of this can be found in Brewer and Pierce's study (2005), in which they measured social identity complexity with regard to three of their respondents' self-chosen categories and included "American" as a fourth category for all respondents. They obtained significant relationships between social identity complexity and a variety of social attitudes relating to race and religion, even when removing the category "American" from some analyses, and even for individuals who did not include race and/or religion among their three most important social categories. Thus, one may assume that mere cognitive awareness of the complexity and nonoverlapping nature of one's own social categories translates into greater awareness of the complexity of the social world more generally.

ANTECEDENTS OF SOCIAL IDENTITY COMPLEXITY

Naturally, most individuals will be more or less aware of the actual overlap between the multiple categories they belong to. Actual category overlap will thus be, to some extent, predictive of social identity complexity, yet primarily so for the overlap complexity component of social identity complexity. Those individuals who identify with categories that are already characterized by a relatively high degree of actual overlap are, thus, likely to have relatively lower overlap complexity scores than will individuals whose important categories show considerably less actual overlap. For example, when seeking to assess overlap complexity based on self-categorized nationality and religion, Bangladeshi Muslims are likely to yield lower overlap complexity scores at an absolute level than German Muslims, based on the simple fact that the vast majority of people of Bangladeshi background are Muslim, whereas a

tiny minority of German people is Muslim. Thus, one needs to keep in mind potential differences in the nature of the categories used to assess social identity complexity, and the situational context in which they are placed. Hence, when seeking to make sense of social identity complexity involving somewhat more polarized social categories, or in more polarized social contexts, it may be necessary to examine both types of complexity, or even focus solely on similarity complexity.

In our research conducted in Northern Ireland, a prototypical polarized society, we sought to explore social identity complexity surrounding religious and national identities. It is generally assumed that most Catholics in Northern Ireland self-categorize as Irish, while most Protestants self-categorize as British. Although these two categories do not fully converge, even in a context as polarized as this, the actual overlap between these two categories is relatively high, with less than a quarter of the population typically choosing crosscutting identities (see Schmid et al., 2010). Given this relatively high actual overlap between categories, we focused more on similarity complexity for the purpose of these studies, but nonetheless included a measure of overlap complexity alongside a similarity complexity measure in the second of these studies. Interestingly, sufficient variation in scores was observed not only for similarity but also for overlap complexity to yield a negative relationship with in-group bias. This is particularly interesting since it confirms the aforementioned discrepancy between actual and subjective overlap even in a context as starkly polarized as Northern Ireland, in which we might expect people to be very much attuned to the actual overlap between groups.

One needs also to keep in mind that overlap complexity, more so than similarity complexity, can be assessed bidirectionally, yielding two potentially very different answers. Asking, for example, "How many Americans are Christian?" is very different from asking about the proportion of Christians who are American. Obviously, making such a distinction requires somewhat more cognitive effort on behalf of the individual. It is, thus, perhaps not surprising that researchers have found that various measures of cognitive style positively predict social identity complexity. For example, Miller et al. (2009) found that need for cognition (see Cacioppo, Petty, & Kao, 1984) and close-mindedness (a subcomponent of need for closure, see Webster & Kruglanski, 1994) were positively associated with social identity complexity. In a second study, Miller et al. (2009) found that respondents instructed to engage in cognitive elaboration (by getting respondents to think carefully about the actual overlap between categories) before rating the perceived overlap between their multiple identities yielded

higher overlap complexity scores than did respondents not instructed to do so. This result provides further support for the notion that cognitive style helps explain individual differences in social identity complexity.

Roccas and Brewer (2002) have suggested that individual variations in social identity complexity may depend on a range of additional antecedents, such as values, mood, or stress. For example, they argue that since stress is known to deplete cognitive resources and lead to a narrowed focus of attention (Easterbrook, 1959), it may also lead to less complex and less differentiated multiple in-group perceptions. We devote the remainder of this chapter, however, to a discussion of two additional antecedents of social identity complexity: the diversity of one's social environment or social experiences, and identity threat. We focus on these two potential antecedents in particular since they also pertain to two key social psychological theories of intergroup relations, intergroup contact theory and optimal distinctiveness theory. Both these theories have fundamentally shaped social psychological thinking on social identity and intergroup relations, and in combination with the newly advanced social identity complexity perspective, we believe, hold particular promise for advancing social psychological theory on intergroup relations.

SOCIAL DIVERSITY AND SOCIAL IDENTITY COMPLEXITY

Brewer and Pierce (2005) have argued that exposure to socially diverse environments should be associated with greater social identity complexity. What reasoning underlies this claim? Being high in social identity complexity rests upon awareness and recognition of the nonoverlapping nature of social categories, either in meaning (as captured in similarity complexity) or in actual numbers or proportion (as captured in overlap complexity). One may thus assume that living, working, or socializing in environments that are more heterogeneous in terms of their social, ethnic, racial, or religious composition may automatically provide the basis for such increased awareness of the nonoverlapping nature of categories. In other words, being exposed to more complex social environments, involving crosscutting and diverse social groups, is likely to lead to more complex perceptions of one's own multiple in-groups. Indeed, in a correlational study in the United States, Miller et al. (2009) found that people who reported living in residential areas with a greater proportion of residents from different ethnic backgrounds were characterized by higher overlap complexity.

One limitation of Miller et al.'s findings is that they rely on self-reported data, respondents' subjective estimations, for their measure of contextual diversity. In two studies, one in Northern Ireland comparing ethnopolitically segregated with mixed neighborhoods (see Schmid et al., 2010) and one in England comparing neighborhoods of varying degrees of ethnic diversity (Schmid, Hewstone, & Al Ramiah, 2011), we sought to establish the impact of ethnoreligious diversity, as a macrolevel contextual phenomenon, on social identity complexity. In our Northern Irish sample, we deliberately sampled in ethnopolitically segregated and diverse areas (using census data) and observed that individuals living in ethnopolitically segregated areas had lower social identity complexity levels than individuals living in mixed neighborhoods (areas inhabited, to approximately equal proportions, by both Catholics and Protestants; see Schmid et al., 2010). However, due to the limited number of areas available to us in this study, we simply used a categorical comparison between the two types of areas, segregated and mixed, in this ethnopolitically-polarized context, Northern Ireland.

In our second study that sought to examine the relationship between contextual diversity and social identity complexity, we deliberately sampled around 850 white British majority respondents from more than 200 different neighborhoods, characterized by varying degrees of ethnic minority proportion in England (again based on census records). We used multilevel modeling techniques to take account of the hierarchical nature of the data, and thus the nonindependence of observations since one may assume that individuals who live in the same neighborhood may be more similar to one another in their responses than to individuals living in other neighborhoods (similar methodological concerns apply when examining, e.g., students nested in classrooms or individuals within families, etc.; see, e.g., Raudenbush & Bryk, 2002, for an overview of hierarchical models). Our results showed that both the subjectively perceived, as well as the actual, degree of diversity, measured by the percentage of nonwhite British respondents (i.e., the ethnic minority proportion) in respondents' neighborhood was associated with greater social identity complexity (Schmid et al., 2011). These studies thus empirically corroborate the theoretical claim by Brewer and Pierce (2005) that exposure to diverse social environments should be positively related with social identity complexity.

Mere exposure to social diversity may, however, not always be entirely sufficient to prompt more complex multiple social identity structures. In other words, despite living, working, or socializing in seemingly diverse social environments, individuals may go about their daily lives in relatively more homogenous microenvironments. For

example, despite working in a large multinational company in London, a male white British lawyer may spend most of his time with other male white British lawyers. Lau and Murnighan (Lau & Murnighan, 1998; see also Lau & Murnighan, 2005) speak, for example, about so-called group fault lines that may develop in diverse organizational contexts, such as diverse work groups. They thus argue that diverse groups hold the potential for the emergence of particular subgroups, whereby individuals within a larger, more diverse context may align themselves along one or several unifying characteristics, demographic or otherwise, to form relatively smaller, more homogenous subgroups. Such fault lines are thought to vary in strength depending on the number of attributes along which they develop.

If we return to our aforementioned example, we may thus imagine the occurrence of a relatively strong fault line defined by two subgroups of lawyers, male white British lawyers and female African American lawyers, respectively. Since three attributes (gender, race, and nationality) align to form a single dividing fault line, this fault line is thought to be relatively stronger than if each of the three attributes had formed three separate fault lines along gender, race, and nationality, respectively. In view of our discussion of social identity complexity, then, one may assume that such fault lines may result in less complex multiple identity structures. It thus becomes questionable whether social diversity, as a purely contextual, macrolevel phenomenon (based, e.g., on the number of different groups or the percentage of diverse others living in a contextual unit), is sufficient to explain variations in social identity complexity without taking into consideration individuals' subjective experiences of their contextual diversity. Naturally, individuals need to be aware of, and subjectively experience, the diversity of their social environment in some form or other for the environmental context to influence their multiple self-perceptions. Diverse social settings should, then, be seen as *opportunities* for diverse social experiences and, importantly, for intergroup contact, but it is up to individuals to grasp these opportunities for them to impact on attitudes and other outcomes.

Intergroup Contact Theory

Since its inception in the 1940s and 1950s (Allport, 1954; Williams, 1947), intergroup contact theory has been one of the most commonly invoked social psychological approaches to explaining intergroup relations (see, e.g., Miller & Brewer, 1984). The basic notion of intergroup contact theory is that direct, face-to-face contact with individual out-group members may reduce negative and promote

positive out-group attitudes via processes of generalization of positive attitudes from the encountered individual(s) to the wider out-group, especially if certain moderating conditions are met (see, e.g., Pettigrew, 1998).

Widespread empirical support for intergroup contact theory has been accrued in many different contexts and under many different conditions. Most significantly, a more in-depth understanding of the extent to which different *types* of contact are effective, and *when* and *how* they operate has since been obtained (for a detailed review, see Brown & Hewstone, 2005; for meta-analytic support, see Pettigrew & Tropp, 2006). Regarding types of contact, we now know that both the frequency and nature of direct contact is important for shaping intergroup relations, and that cross-group friendship is a particularly strong antecedent of positive intergroup relations (e.g., Paolini, Hewstone, Cairns, & Voci, 2004). We also know that indirect, or extended, contact is also typically associated with positive intergroup effects (Wright, Aron, McLaughlin-Volpe, & Ropp, 1997). Indirect or extended contact refers to the (mere) knowledge of a fellow in-group member's contact with out-group members (typically, but not necessarily, the fellow in-group members are ones to whom one is close, e.g., family members or friends; Wright et al., 1997; see Turner et al., 2007, for a review). The effects of extended contact are especially strong for individuals who have no direct contact themselves (see Christ et al., 2010). Regarding when contact is most effective, we know that contact is typically more strongly associated with more positive out-group attitudes when category memberships remain salient during contact (see Brown & Hewstone, 2005). Finally, we know that contact is associated with reduced prejudice via reduced intergroup anxiety and group-based threat perceptions (e.g., Islam & Hewstone, 1993; Tausch et al., 2007), and via increased empathy, perspective taking, and positive emotions (see e.g., Mackie & Smith, 2002).*

We propose that one might think of intergroup contact as affecting not only more differentiated out-group perceptions, but also more differentiated *in-group* perceptions. That contact may be, to some extent, involved in *shaping* in-group perceptions, or even multiple in-group perceptions, has not received much research attention to date, and insufficiently so, we believe. This does not mean that there has been a lack of interest in the combined effects of intergroup contact and multiple categorization per se. In fact, there is a large body of empirical

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* We do not have space to elaborate on intergroup contact theory in detail within the realm of this chapter. For detailed reviews, see Brown & Hewstone, 2005; Hewstone, 2009.

research that examines (multiple) categorization as moderators of contact effects, that is, as conditions under which contact may be most effective in bringing about generalization of positive out-group attitudes. As such, it has been argued that for contact to be effective, it should be structured in ways that allow for a change in the cognitive representations of self and others, as well as more inclusive conditions for in-group membership.

The exact nature of such changes in the structure of social categorization remains disputed, and different theoretical approaches have been put forward. To give a brief overview, in the context of single categorizations, Brewer and Miller's (1984) "decategorization" perspective argues that the salience of categories should be reduced to allow for more personalized interactions, whereas the mutual differentiation model (Hewstone & Brown, 1986) argues that salience should be retained since personalized encounters may impede generalization of positive attitudes from the individual to the out-group at large. In the context of multiple categorization, the recategorization perspective (Gaertner et al., 1993) argues that intergroup contact should be maximally effective in yielding positive intergroup effects if the encountered individual is cognitively included in a common superordinate in-group, whereby contact may be most effective in predicting positive out-group attitudes if both subgroup and superordinate identities are kept salient (see Gaertner & Dovidio, 2000).

Although we do not have space here to elaborate on these different models (but see, e.g., Brewer & Gaertner, 2001; Schmid & Hewstone, 2010), let it suffice to say that multiple categorization processes are centrally important to understanding the effects of contact on attitudes. Nonetheless, this line of research does little to explain if and how intergroup contact may directly impact multiple categorization processes, including in-group perceptions and, in particular, social identity complexity.

Intergroup Contact and Social Identity Complexity

Why might we expect intergroup contact to positively influence social identity complexity? Upon finding that contact with minority groups was related to less positive views of the in-group, Pettigrew (1997) argued that intergroup contact may attune individuals to the possibility that the in-group's norms, customs, and lifestyles may not be the only acceptable ways to manage their social world and may prompt individuals to reassess their views of their in-group. He refers to this process as "deprovincialization." Moreover, Gaertner, Dovidio, and Bachman (1996) have argued, and confirmed empirically, that

contact yields positive out-group differentiation effects by changing people's cognitive representations of in-group and out-group from two separate subgroups to one common, more inclusive superordinate in-group.

It is feasible to apply similar logic in the context of multiple categorization processes. Intergroup contact may thus also affect the cognitive representation of one's multiple in-groups by highlighting, via direct experience with diverse others, the complexity and nonoverlapping nature of social categories. Encountering diverse others, who may be in-group members on some categories (e.g., gender, profession), but out-group members on others (e.g., religion, ethnicity) should prompt individuals to engage in increased cognitive differentiation processes and thus positively affect social identity complexity. In our two studies in Northern Ireland, already referred to above, we confirmed such a positive relationship, revealing that positive intergroup contact with the ethnopolitical out-group was positively associated with similarity, as well as overlap complexity (Schmid et al., 2009).

But it may not only be direct contact, that is, actual face-to-face contact with out-group members that may prompt higher social identity complexity. Brewer (2008) argues that even extended contact may play a role in affecting social identity complexity. According to Brewer, the awareness of other in-group members' contact with out-group members should inevitably enhance awareness of the nonoverlapping nature of social categories, including one's own. Since extended contact involves the knowledge of fellow in-group members' contact with a diverse group of others (with whom the individual may not be friends him or herself), the recognition that not all of one's acquaintances and friendship circles overlap should enhance awareness of the complexity of own and others' multiple group memberships.

Moreover, the nature of the relationship between intergroup contact and social identity complexity is such that contact may exert positive effects on attitudes as a consequence of changing people's multiple in-group perceptions, in particular their social identity complexity. Thus, social identity complexity may be thought of as an important potential mediator of contact effects on attitudes, whereby the change in cognitive representation of the in-group may help explain *how* contact can positively influence out-group attitudes. In our two recent studies in Northern Ireland, we also tested whether the effects of direct contact on attitudes were mediated by social identity complexity (Schmid et al., 2009). Our results showed that contact with members of the ethnopolitical out-group was indeed associated with greater social identity complexity surrounding individuals' religious and national

categories, which positively mediated the effects of contact on in-group bias and tolerance toward the ethnopolitical out-group.

Social identity complexity may also be an important factor explaining why contact brings about so-called secondary transfer effects (Pettigrew, 2009). Secondary transfer effects describe situations in which contact with a member of one particular out-group (the "primary" out-group) has positive consequences for attitudes not only toward this group in general, but also towards other, even unrelated out-groups that were not involved in the initial contact situation ("secondary" out-groups). This phenomenon has been observed in a range of different contexts, including various European countries and the United States (see Pettigrew, 1997, 2009; Tausch et al., 2010). Pettigrew (1997) argued that such secondary transfer effects might occur as a result of deprovincialization, yet Tausch et al. (2010) reported consistent support for mediation via attitude generalization (i.e., a change in attitude towards the primary out-group) rather than via reduced identification with the in-group. Their studies, however, focused only on single in-group categories, and it is likely that Pettigrew's notion of deprovincialization more readily speaks to multiple categorization processes, especially the concept of social identity complexity (see also Brewer, 2008). In a subsequent study, we examined the relationship between cross-group friendship and various out-group attitudes, including not only the primary ethnopolitical out-group but also attitudes toward immigrants and homosexuals, and what mediated these generalization effects across out-groups (Schmid, Hewstone, Tausch, Cairns, & Hughes, 2011). We found that social identity complexity positively mediated the effects of cross-group friendship with members of the primary out-group on attitudes toward the secondary out-groups. In other words, cross-group friendships were indirectly associated with more positive attitudes toward the other secondary out-groups, via higher social identity complexity.

IDENTITY THREAT, DISTINCTIVENESS, AND SOCIAL IDENTITY COMPLEXITY

One may assume that in the context of multiple categorization, individuals depend less on a single category to satisfy the psychological need of "belonging" than they do in the context of single categorization. As a consequence, they should be less likely to polarize their loyalties along any specific in-group category, which then holds lower potential for intergroup tensions (see Brewer, 1993). This, of course, relies on the multiple categories considered being of relatively equal salience,

a precondition that may not always be given, especially in situations that give rise to threat perceptions surrounding identity and group membership. Situations characterized, for example, by large status differentials surrounding a single category may give rise to heightened threat perceptions among the respective minority status group, resulting in heightened salience of the threatened category compared to the multiple other categories involved.

Perceptions of identity threat may also lead individuals to make use of less inclusive criteria for determining in-group membership along multiple categories (see Hewstone, Islam, & Judd, 1993). Thus, individuals who perceive high identity threat are likely to display more exclusive multiple categorization patterns than do individuals who perceive no or low threat to identity. Roccas and Brewer (2002) have advocated a similar relationship between identity threat and social identity complexity. They argue that threat perceptions surrounding a single in-group inevitably incur relatively higher category salience in comparison to one's multiple other categories, and may also induce stress and deplete attentional resources. As a consequence, the threatened category acquires greater relevance for category-based self-definitions, increasing the likelihood for individuals to perceive their multiple in-groups in a more simplified, less differentiated way.

In two experimental studies involving Israeli student samples, Roccas and Brewer (2002) manipulated threat perceptions by asking half the sample to respond to a set of items gauging the perceived accessibility of unconventional weapons in a possible future war with Iraq (the high threat condition), and compared these with the other half of the sample who responded to a set of items on nature-related issues (the low threat condition). The studies examined the effects of the threat manipulation on similarity complexity (Study 1) and overlap complexity (Study 2), as well as the effects of threat on stress-related mood. Both studies corroborated their predictions, namely that high threat would be associated with more simplified, less complex multiple in-group perceptions, as well as with higher stress-related mood. Threat perceptions also yielded significant effects on both types of social identity complexity over and above the effects of mood-related stress. Interestingly, the effect of threat on social identity complexity failed to reach statistical significance when the category implicated in the threat manipulation ("Israeli") was removed from the social identity complexity measures, supporting the view that threat heightens the salience of the threatened category relative to the other categories the individual belongs to. The type of threat examined in these two studies is most akin to the conceptualization of realistic threat in Stephan

and Stephan's integrated threat theory (Stephan and Stephan, 2000; Stephan, Ybarra, & Morrison, 2009), but one needs to keep in mind that identity- or group-based threats may take many different forms (see, e.g., Riek, Mania, & Gaertner, 2006, for a review). One type of threat that is, in our opinion, of particular interest for a discussion of social identity complexity is threat to distinctiveness.

Optimal Distinctiveness Theory and Threat to Distinctiveness

Optimal distinctiveness theory (Brewer, 1991) advocates that individuals are driven by two opposing needs—a need for inclusion and assimilation and a need for differentiation and distinctiveness. These needs may differ across individuals and contexts. In order to reconcile these opposing needs, individuals are thought to self-categorize and identify with categories that are optimally distinct, that is, that are sufficiently inclusive to meet their needs for assimilation, but sufficiently exclusive to meet needs for distinctiveness (see Leonardelli, Pickett, & Brewer, 2010, for a detailed review; see also Leonardelli, Pickett, Joseph, & Hess, Chapter 6, this book). In its argumentation, optimal distinctiveness theory thus seeks to explain individuals' *motivation* for self-definition in terms of, and identification with, social categories, highlighting that individuals are motivated to identify with categories that optimally balance their two opposing needs. Naturally, however, individuals striving for optimal distinctiveness does not end with identification in an optimally distinct group. Group boundaries may change, for example, and groups may become too inclusive, thus posing a threat to the individuals' need for distinctiveness. Such threats to distinctiveness may, then again, have consequences for in-group perceptions. Thus, since high threats to distinctiveness may prompt a high need for distinctiveness, they should lead to stronger preferences for exclusive than inclusive identities (see Pickett, Silver, & Brewer, 2002). Although optimal distinctiveness theory in its initial formulation pertains primarily to single categories, it is likely that similar principles apply in the context of multiple categories. In the context of a discussion of social identity complexity, the idea that need for distinctiveness, particularly when involving threats to distinctiveness, may predict social identity complexity is not only an interesting but also a theoretically relevant one.

Social identity complexity pertains to the cognitive representation of one's multiple in-group categories in more or less complex ways. Hence, if one's need for distinctiveness is under threat, one may not, or not only, be inclined to seek greater exclusiveness surrounding the single category under threat but perhaps will hold more exclusive, simplified multiple in-group perceptions. In fact, in many instances, more simplified

multiple in-group perceptions are much more probable than a change of group membership or a redrawing of category boundaries, especially if group membership is stable and inclusiveness unlikely to be changed (e.g., ethnicity or gender) or if the category under threat is a valued one. Distinctiveness threat may thus be associated with more exclusive criteria for multiple in-group membership, that is, with lower social identity complexity. In our two Northern Irish studies already referred to above, we were able to confirm this hypothesis. We found that perceptions of distinctiveness threat surrounding ethnopolitical group membership were negatively associated with both similarity complexity (Studies 1 and 2) and overlap complexity (Study 2; Schmid et al., 2009).

Given the relative novelty of the social identity complexity concept in social psychological theorizing and research, empirical evidence on the relationship between identity threat and social identity complexity is still relatively sparse. Although we may conclude that perceived threat to distinctiveness can be an antecedent of social identity complexity, much more empirical work is needed to confirm this relationship, also involving other types of threats. For example, it will be interesting to consider the extent to which threats to in-group power or status, or to values or morals may affect social identity complexity. It will also be interesting to explore differences between minority and majority status group members, for example, whether belonging to a numerical or devalued minority prompts more or less complex multiple identity structures.

This question is also likely to be of relevance when seeking to draw conclusions on the aforementioned relationship between social diversity and social identity complexity. Hypothetically, it seems feasible that members of minority groups may have either relatively more or less complex identity structures. By virtue of belonging to a numerical minority, and thus having greater exposure to and potentially greater awareness of the nonoverlapping nature of categories, minority members may have higher social identity complexity. However, this may only be the case if the situation does not give rise to threat perceptions. In high-threat situations, minority group members may of course display more exclusive, simplified representations of their multiple groups, especially if they identify highly with the category under threat (relatedly, prior research has shown that members of numerical minority groups are more cognitively preoccupied with their group membership than are members of majority groups; Lücken & Simon, 2005). All of this remains conjecture at this early stage, however, thus underlining the need for future research to yield greater understanding of both the antecedents and consequences of social identity complexity.

SOCIAL IDENTITY COMPLEXITY AS A MEANS FOR IMPROVING INTERGROUP RELATIONS

Multiple categorization approaches are typically thought of as holding particular merit in their potential not only to further advance understanding of but also to improve intergroup relations by creating conditions under which positive out-group attitudes may be promoted. For example, the crossed categorization approach rests upon the premise that crossing two orthogonal categories reduces the salience of any one of these, and may thus lead to more differentiated out-group perceptions (see, e.g., Brewer, 2000, for a review). In addition, the common in-group identity model, and to some extent the dual identity model, holds that recategorization of individuals from two former subgroups to a common, superordinate in-group may also lead to more positive out-group attitudes (see Gaertner & Dovidio, 2000). However, these multiple categorization approaches have some limitations as social interventions. These approaches rely largely on changing or restructuring people's self-categorizations, and individuals may not wish to share, let alone merge, group membership with groups perceived as a threat; they also hold the risk of depriving individuals of valuable social categories (see, e.g., Brewer & Gaertner, 2001). Moreover, it is difficult to achieve changes in self-categorization, reduce the salience of categories, or get individuals to attend to the multiple category memberships of others in the real world (it is for this reason, perhaps, that most tests of these approaches have been conducted within the laboratory, using either existing or arbitrarily created social categories).

By focusing much more explicitly on multiple self-categorization processes than do other multiple categorization approaches, social identity complexity seeks to explain variations in out-group perceptions only with regard to in-group categories that are central and important to individuals. Thus social identity complexity cannot be thought of as conducive to experimental manipulation involving arbitrary categories. Unlike other multiple categorization approaches, the concept of social identity complexity is inherently an individual difference variable. It is thus not so much an approach in the strictest sense but more of an explanatory concept underlying multiple categorization perspectives.

We do not wish to imply, however, that the concept does little else than explain variations in out-group perception. On the contrary, we believe that since social identity complexity tends to positively covary with out-group attitudes, and since it is subject to situational and experiential determinants, the concept holds the potential for a much more valuable approach to promoting positive intergroup relations.

To elaborate, rather than manipulating social identity complexity per se, which would be not only unrealistic but also undesirable, focus should be placed on effecting *change* or *variations* in social identity complexity. For example, if we assume that exposure to and experience of diversity may positively influence social identity complexity, creating opportunities for experience of diversity seems crucial. To illustrate, if we find that children who are educated in relatively homogenous, polarized environments are relatively lower in social identity complexity than children taught in more heterogeneous, diverse educational contexts, seeking to diversify and desegregate social institutions may be one way in which more differentiated multiple in-group perceptions may be achieved.

More importantly, however, strategies that seek to change variations in social identity complexity should not require individuals to change categorizations; they should merely seek to influence the way they think about their in-group memberships in a more complex, differentiated manner. Individuals need not thus forsake any valued identities they may hold (a key criticism surrounding the common in-group identity model, see Brewer & Gaertner, 2001), nor do they need to attend closely to others' multiple group memberships (as is required in crossed-categorization approaches). Merely achieving variations in social identity complexity surrounding individuals' multiple in-group categories may thus be sufficient to yield positive out-group variations. We believe that this makes social identity complexity not only a theoretically intriguing but also a critically important concept in understanding and improving intergroup relations.

To conclude, the conceptualization of social identity complexity developed by Marilynn Brewer (and her colleagues) has significantly advanced understanding not only of multiple categorization processes per se but has also highlighted that the extent to which we perceive our multiple in-groups in more or less complex ways may have important consequences for how we perceive members of (multiple) out-groups. Moreover, the concept of social identity complexity theoretically advances existing social psychological theory of intergroup relations, especially theory and research on intergroup contact and optimal distinctiveness.

This chapter has highlighted that diverse social experiences in the form of intergroup contact or need for and/or threat to distinctiveness may not only help explain variations in social identity complexity, but that social identity complexity may be a key mediating variable that helps explain how contact and distinctiveness needs and/or threat affect out-group attitudes. Marilynn Brewer and colleagues' theorizing

and research on social identity complexity thus marks the emergence of a synergy between this and some of her other key research contributions to the social psychology of intergroup relations, namely intergroup contact, optimal distinctiveness, and crossed categorization. This makes the concept of social identity complexity an invaluable addition to the social psychological literature of intergroup relations, and one that is likely to spark considerable research interest in years to come.

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6

OPTIMAL DISTINCTIVENESS IN NESTED CATEGORIZATION CONTEXTS

Moving From Dueling Identities to a Dual Identity

Geoffrey J. Leonardelli, Cynthia L. Pickett,
John E. Joseph, and Yanine D. Hess

A key feature of contemporary and classic theories of social identification is the idea that individuals can flexibly categorize themselves as members of various social groups (for recent reviews, see Dovidio & Gaertner, 2010; Yzerbyt & DeMoulin, 2010). When asked to respond to the statement "Who am I?" (Kuhn & McPartland, 1954), people often generate a lengthy list of groups that serve to define who they are. Although social identity researchers have recognized that a multiplicity of self-categories can exist for any single individual, theory and research has only recently addressed the interrelationships between multiple self-categories and the consequences that these relationships have for shaping social identification processes (Crisp & Hewstone, 2007; Roccas & Brewer, 2002; Schmid & Hewstone, this volume) and intergroup relations (Brewer & Pierce, 2005; Crisp, Hewstone, & Rubin, 2001; Lau & Murnighan, 1998, 2005; Schmid & Hewstone, this volume). Individuals' representations of their identities can involve perceiving some groups as isolated from other groups while perceiving other sets of groups as being highly overlapping (Roccas & Brewer, 2002). Of primary interest in this chapter are nested category contexts, where two categories are salient, but one category is perceived to be a subset of a larger superordinate category. For example, in academic contexts,

a person's specific field (e.g., psychology) might be perceived as being nested within a broader discipline (e.g., the social sciences). We argue here that a fruitful avenue for research is to consider how social identity processes operate within specific identity structures.

A hallmark of Marilynn Brewer's prolific and illustrious research career is the creative and novel manner in which ideas, paradigms, and research traditions were (and continue to be) brought together to address important questions. In particular, Brewer (1979, 1991) maintains a long-standing interest in the motivational underpinnings of social identification and intergroup behavior and an interest in how social groups and identities are cognitively represented (e.g., Brewer, 1988; Roccas & Brewer, 2002). Thus, we felt it to be particularly fitting to use this Festschrift volume honoring Marilynn Brewer's career as an outlet for examining the intersection between social identity processes and social identity structures. More specifically, our goal in this chapter is to apply optimal distinctiveness theory (Brewer, 1991) to the specific context of "nested categorization," that is, structures in which some social categories (subordinate categories) are nested within more inclusive (i.e., superordinate) ones (Figure 6.1).

In this chapter, we briefly review optimal distinctiveness theory and its past applications to nested category contexts (Brewer, 1993; Hornsey & Hogg, 1999). Researchers in this field of study have proposed
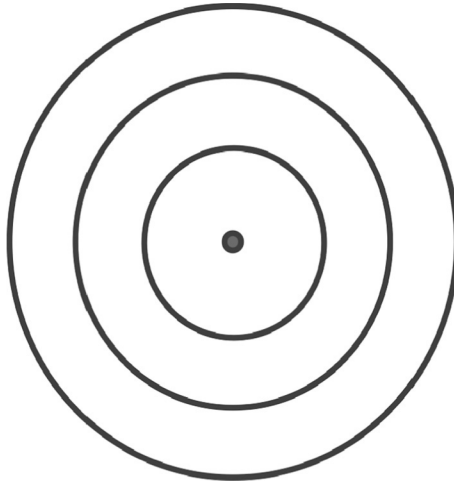
Figure 6.1 A graphical depiction of a nested categorization context. Larger circles represent more inclusive social categories. This figure serves not only to characterize the context we study but also to honor Marilynn Brewer (Brewer, 1991), as it represents a figure closely associated with the original publication of optimal distinctiveness theory.

that group members are more likely to identify with and differentiate their subgroup from other social categories as the superordinate category's inclusiveness increases. Despite supportive evidence for this proposal, a full explanation for this effect has not been provided in the literature. In particular, it is unclear how group members determine the superordinate group's level of inclusiveness, and we argue that this has important implications for group identification. Judgments of group inclusiveness are comparative in nature and are made in the context of other salient social categories. Thus, an individual could determine a superordinate group's level of inclusiveness by comparing the superordinate group to a subgroup (a vertical category comparison). Alternatively, individuals could determine a superordinate group's level of inclusiveness by comparing the superordinate group to other superordinate categories (a horizontal category comparison). Although both types of comparisons can ultimately lead to "dueling identities," where group members identify more with the subgroup or the superordinate group, we argue that horizontal comparisons allow for the situation in which both the subgroup and the superordinate group are seen as optimally distinct. When both groups are judged to be at an optimal level of inclusiveness, a "dual identity"—where group members identify with both the superordinate group and the subgroup—may emerge (Brown & Hewstone, 2005; Dovidio, Gaertner, & Saguy, 2009; Gaertner, Mann, Murrell, & Dovidio, 1989). In this chapter, we present data from our research laboratories that test these ideas and discuss the implications of this research for intergroup behavior and acculturation.

OPTIMAL DISTINCTIVENESS THEORY

The optimal distinctiveness model (Brewer, 1991; Leonardelli, Pickett, & Brewer, 2010) posits that human beings are characterized by two opposing needs. The first is a need for assimilation and inclusion, a desire for belonging that motivates immersion in social groups. The second is a need for differentiation from others that operates in opposition to the need for inclusion. As group membership becomes more and more inclusive, the need for inclusion is satisfied but the need for differentiation is activated; conversely, as inclusiveness decreases, the differentiation need is reduced but the need for inclusion is activated. These competing drives hold each other in check, assuring that interests at one level are not consistently sacrificed for interests at the other. Working together, these needs govern the relationship between the self-concept and membership in social groups. According to the model, the two opposing motives produce an emergent characteristic—the capacity for social

identification with distinctive groups that satisfy both needs simultaneously. Optimal identities are those that satisfy the need for inclusion *within* the in-group and simultaneously serve the need for differentiation through distinctions *between* the in-group and out-groups.

Since the inception of optimal distinctiveness theory, a large and varied body of empirical research has accumulated in support of the theory's predictions (Leonardelli et al., 2010), and more recent work has offered extensions of the core theory (Crano & Hemovich, this volume; Pickett, Smaldino, Sherman, & Schank, this volume; Schmid & Hewstone, this volume). This research demonstrates that individuals are more likely to identify with and prefer membership in moderately inclusive groups (e.g., Leonardelli & Brewer, 2001; Pickett, Silver, & Brewer, 2002). The needs for inclusion and differentiation have also been shown to affect cognition such that individuals are able to strategically maintain or increase group distinctiveness or inclusiveness (e.g., Pickett & Brewer, 2001; Pickett, Bonner, & Coleman, 2002). Furthermore, this work reveals that intergroup behaviors can create or enhance intragroup inclusion and intergroup differentiation, as well as maintain membership in optimally distinct groups (Leonardelli & Brewer, 2001; Zhong, Phillips, Leonardelli, & Galinsky, 2008). Research supporting optimal distinctiveness theory has been conducted with real and minimal groups and has included both experimental manipulations (to allow for causal inference) and individual differences (to allow for spontaneous and naturalistic observation). This body of research provides a substantial degree of support for the theory's predictions and for the theory's utility as an explanatory framework for social identity, social cognition, and intergroup relations. In this chapter, we sought to explore the implications of optimal distinctiveness for group identification in nested categorization contexts.

OPTIMAL DISTINCTIVENESS IN NESTED CATEGORIZATION CONTEXTS

In this chapter, the term *nested categorization contexts* is used to refer to contexts where explicitly defined social categories exist and these categories are nested within more inclusive explicitly defined social categories. For example, being Asian American refers to simultaneous categorization in a relatively inclusive category (American) and a relatively exclusive or subordinate category (Asians within the United States). Similarly, the internal structure of organizations is often formally organized by nested categories (Scott & Davis, 2007), from the most inclusive (the organization as a category) to increasingly more exclusive ones (such as

functional areas like marketing, production, research and development, etc.).* Nested categorization contexts are thus defined by co-occurring memberships in relatively exclusive social categories that are positioned within more inclusive superordinate social categories.

The focal goal of this chapter is to consider the degree to which individuals identify with memberships in superordinate and subordinate groups. To date, research has supported optimal distinctiveness theory's prediction that group members are more likely to identify with and differentiate their more exclusive subgroups from other categories, particularly as the inclusiveness of the superordinate category increases (Brewer, 1993; Hornsey & Hogg, 1999). Specifically, according to optimal distinctiveness theory (Brewer, 1991; Leonardelli et al., 2010), individuals search for moderately inclusive group memberships, ones that allow for both inclusion and distinctiveness simultaneously. Both superordinate and subgroup categories are by definition inclusive, containing a group of individuals, but superordinate categories are necessarily associated with higher levels of inclusiveness than subordinate ones (Brewer, 1993). Thus, within a given nested categorization context and holding all else constant, individuals should be more likely to identify with the subgroup and less likely to identify with the superordinate group because subgroups will be perceived to be more optimally distinct than the superordinate category. This preference for subgroup identities should become more pronounced as the perceived inclusiveness of the superordinate category increases.

Research by Hornsey and Hogg (1999) yielded evidence supporting this prediction. These researchers were interested in investigating nested categorization contexts, where individuals belong to subgroups nested within more inclusive superordinate groups. According to optimal distinctiveness theory (Brewer, 1993), the more inclusive superordinate groups are perceived to be, the more group members should be motivated to turn to the more exclusive subgroups within the superordinate by exhibiting greater identification with or favoritism for their subgroup. Hornsey and Hogg (1999) tested this prediction with University of Queensland students. These students were members of either the math/science or humanities faculty areas and were led to perceive their university as the superordinate group and their faculty area

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* It could be argued that all social categorization contexts are inherently nested, as increasingly more superordinate categories can be formed until individuals reach the level of humanity (Dovidio et al., 2009; Turner, 1987). However, our focus in this chapter is less on how optimal distinctiveness motives and group inclusiveness influence the formation of superordinate categories (when none are already recognized) and more on how they influence identification with *salient* nested social categories.

as their subgroup. Hornsey and Hogg (1999) first measured perceptions of superordinate inclusiveness to determine whether group members felt that the superordinate category was too inclusive. Participants then reported their level of subgroup identification and intergroup behavior.

Analysis revealed that greater perceived superordinate group inclusiveness was associated with greater subgroup differentiation whereby subgroup members expressed a preference for their subgroup over the other subgroup. Interestingly, additional analyses revealed that this effect appeared to be nonlinear; when the superordinate group was perceived to be fairly distinctive (i.e., when analysis of superordinate inclusiveness was conducted with scores from the bottom half of the scale), no relation between superordinate inclusiveness and subgroup differentiation was observed. Rather, the positive relation between superordinate inclusiveness and subgroup differentiation was evident when the analysis was conducted with superordinate scores from only the top half of the scale. Thus, only when the superordinate category was perceived to be highly inclusive did group members exhibit higher levels of subgroup favoritism. This evidence is consistent with the notion that too much inclusiveness leads group members to preserve and retain the distinctiveness of their subgroup.

The research by Hornsey and Hogg (1999) is consistent with the notion that the inclusiveness of the superordinate group affects the intergroup behaviors of the subgroup, where higher inclusiveness is associated with greater preference and in-group favoritism relative to another subgroup. Another way to conceptualize this particular prediction, and perhaps to generalize it, would be to consider group members' preferences or identification with the subgroup relative to the superordinate category. When the superordinate category is highly inclusive, then categorization in and identification with the subgroup should be negatively correlated with identification with the superordinate category. Thinking about the prediction this way, nested categorization should yield what we call *dueling identities*, where simultaneous categorization into a highly inclusive superordinate category and a more exclusive subgroup leads individuals to identify with one social category more than the other.

This prediction was tested recently. Leonardelli and Toh (2011) investigated relations between local employees and foreign coworkers within the same organization; in this context, the organization represented the superordinate group and the local employees and foreign coworkers represented subgroups nested within the organization. In their sample of local employees, Leonardelli and Toh asked participants to rate the degree to which they perceived local

employees and expatriate coworkers to be meaningful subgroup categories (e.g., "I consider expatriates as 'one of them' and host country national employees to be 'one of us'"; Gaertner, Dovidio, Anastasio, Bachman, & Rust, 1993; Greenland & Brown, 1999). In addition to this subgroup categorization measure, participants also completed a measure of organizational identity (e.g., "I feel strong ties with my organization"; $\alpha = .92$; Smidts, Pruyn, & van Riel, 2001). Although the inclusiveness of the superordinate category (i.e., the organization) was not measured, it was presumed that the superordinate category would be perceived as highly inclusive because it must be more inclusive than the subgroup. With this assumption in mind, the authors predicted that the local employees would exhibit dueling identities, that is, the more they perceived the local–foreign categories to reflect a meaningful difference among employees, the less they would identify with the organization. Consistent with this prediction, analysis revealed that the more local employees perceived local and foreign coworker categories to be meaningfully distinct, the less the employees identified with the organization as a whole ($r = -.26$). This effect is also consistent with other research in nested categorization contexts (e.g., Sidanius, Feshbach, Levin, & Pratto, 1997; Waldzus, Mummendey, Wenzel, & Boettcher, 2004); for example, the more the ethnic minorities in the United States identified with their ethnic group, the less they identified with the United States (Sidanius et al., 1997). Overall, evidence supports the notion that in nested categorization contexts, individuals gravitate to identify more with the subgroup than the superordinate group, and defend the subgroup when the superordinate category is more inclusive.

Explaining the Phenomena: Source of Superordinate Inclusiveness

As theory stipulates (Brewer, 1993) and evidence supports (Hornsey & Hogg, 1999), group members identify with and prefer the more exclusive subgroup particularly as the superordinate category's inclusiveness increases. Moreover, group inclusiveness originates from social comparisons (Brewer, 1991; Leonardelli et al., 2010), and, in particular, the size of one category relative to another. However, what has not been addressed, but has important implications for group identification in nested category contexts, is what social comparison is defining the superordinate category's inclusiveness. We distinguish between two such comparisons: (1) vertical and (2) horizontal comparisons.

Vertical comparisons refer to those conducted by comparing the subgroup to the superordinate category. By contrast, horizontal comparisons refer to those conducted by comparing a given group (subgroup
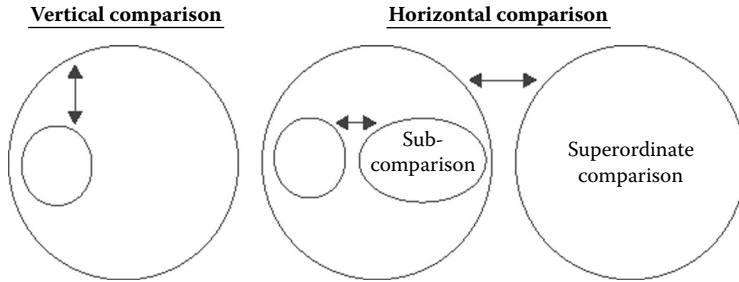
Figure 6.2 Vertical and horizontal comparison frames. In the vertical comparison illustration (on the left), group members compare their superordinate group with their subgroup (nested within the superordinate). In the horizontal comparison illustration (on the right), group members compare their subgroup and superordinate groups to comparisons at the same level of analysis.

or superordinate category) with social categories at the same level of categorization: subgroups are compared to other subgroups, and superordinate categories are compared to other superordinate categories. An illustration of these comparison processes (vertical and horizontal) is presented in Figure 6.2.

These comparison processes have different implications for group identification in nested category contexts. If superordinate inclusiveness is defined primarily by vertical comparisons, then the subgroup is necessarily perceived to be more exclusive and the superordinate more inclusive because of the existing identity structure: the subgroup is nested within the superordinate group.* A social psychology area is necessarily more exclusive than the psychology department, and the larger the psychology department the more exclusive the subgroup (holding the subgroup's absolute size constant). Thus, with vertical comparisons we predict that the more inclusive the superordinate group is perceived to be (and less inclusive the subgroup) the more we expect to see dueling identities, where subgroup identification is negatively related to superordinate identification.

By contrast, superordinate categories could be differentiated from other superordinate social categories in what we term a horizontal comparison. From this point of view, both subgroup and superordinate identities are subject to social categorization *at the same level of self-categorization*, and it is this process of categorization that determines the perceived inclusiveness of the subgroup and the

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* It should be noted that in nested category contexts, we think the subgroup's size necessarily depends on the superordinate size, as subgroups are defined as representing a proportion of the superordinate group. What we consider here is whether vertical comparisons are also the basis for determining the superordinate category's size.

superordinate group separately. Although the subgroup's inclusiveness is derived from comparisons with the rest of the superordinate group, the superordinate group's inclusiveness is derived by differentiating it from comparable social category out-groups. For example, a psychology department's inclusiveness could be derived from comparisons with departments of biology or sociology rather than from comparisons with the social psychology area. Consequently, if horizontal comparisons are engaged to define the inclusiveness of the superordinate group, it is possible that the subgroup and superordinate categories may both be perceived as optimally distinct and, under these conditions, we predict that individuals will be more likely to simultaneously identify with the subgroup and superordinate categories, that is, to adopt a dual identity.

A *dual identity* refers to a state in which individuals simultaneously identify with membership in a subgroup as well as in a superordinate group. The dual identity concept was born out of the literature on intergroup contact (Brown & Hewstone, 2005; Dovidio et al., 2009; Gaertner et al., 1993) and combines the value that the maintenance of subgroups brings with the value that a more inclusive superordinate group brings to intergroup conflict reduction. The maintenance of subgroup boundaries allows individuals to value the differences that each group brings to the interaction (as described by the mutual intergroup differentiation model; Brown & Hewstone, 2005), and establishing a more inclusive group identity allows for cooperative interdependence (as described by the common in-group identity model; Gaertner et al., 1993). A dual identity would thus capitalize on both consequences and offer greater potential for conflict reduction. Consistent with such predictions, tests have supported the notion that a dual identity yields more favorable intergroup contact (e.g., Crisp, Stone, & Hall, 2006; González & Brown, 2003; Hornsey & Hogg, 2000; Richter, West, van Dick, & Dawson, 2006). With a dual identity in place, intergroup conflict can be more persistently reduced.

Engaging a dual identity is what distinguishes the two explanations for superordinate inclusiveness. With vertical comparisons, one of the social categories—the subgroup or the superordinate—will necessarily be more optimally distinct relative to the other, thereby reinforcing an identity antagonism. By contrast, if a horizontal comparison determines the superordinate category's inclusiveness, a dual identity can be established, where both categories could be optimally distinct and thereby engage a dual identity.

Understanding the conditions under which a dual identity is likely to manifest thus has great value in terms of identifying the conditions under which conflict can be reduced and cooperation encouraged between groups. Nested categorization contexts offer a social

identity structure that allows for the implementation of a dual identity. Furthermore, we think it possible that a dual identity can be engaged by a group's optimal distinctiveness. Given that a social category's inclusiveness is derived from differentiation from comparable out-groups, individuals will be most likely to identify with the subgroup and the superordinate group simultaneously to the extent that both are perceived to be moderately inclusive relative to comparable out-groups.

DUAL IDENTITY CAN ORIGINATE FROM OPTIMALLY DISTINCT GROUP MEMBERSHIPS

This prediction was recently tested. As noted in the section "Explaining the Phenomena: Source of Superordinate Inclusiveness," simultaneous identification with subordinate and superordinate group identities should occur when both groups are seen as satisfying individuals' needs for inclusion and differentiation. As part of a larger research study, Pickett and Hess (2009) were able to examine this hypothesis among a sample ($N = 292$) of first- and second-generation immigrants to the United States. These immigrants were students at a large public university in California and the majority of the sample was Asian American, that is, students who themselves or whose parents had emigrated from countries such as China, Korea, Vietnam, or the Philippines. Another substantial proportion of the sample was Mexican American. Thus, in the context in which this study was conducted (in the United States), the superordinate group identity of the study participants was American and the subgroup was participants' ethnic identities based on their country of origin (e.g., Chinese within America).

In this study, participants were asked to consider both their American identity and their ethnic identity and provide ratings of the extent to which each identity satisfied their needs for inclusion and differentiation. For example, to assess the satisfaction of the need for differentiation, participants were asked to indicate their agreement with the statement, "My American [ethnic] identity gives me a sense of being different from other people." Satisfaction of the need for inclusion was assessed by asking participants how "included" and "connected" they felt in relation to other members of the two (American and ethnic) groups. Levels of superordinate and subordinate group identification were measured by having participants complete a multi-item group identification scale for both their American and ethnic identities.

As predicted by optimal distinctiveness theory, simultaneous regression analyses with inclusion and differentiation need satisfaction as predictors of group identification revealed that the two need satisfaction

Table 6.1 Superordinate Group and Subgroup Identification Levels as Predicted by Inclusion and Differentiation Needs Satisfaction

Scale	Beta	*p* Value
Predicting Superordinate Group Identification		
Superordinate group inclusion	.38	.001
Superordinate group differentiation	.08	.067
Predicting Subgroup Identification		
Subgroup inclusion	.27	.001
Subgroup differentiation	.14	.005

Source: Pickett, C. L., & Hess, Y. D. (2009). [Identifying the predictors of U.S. national identification and allegiance]. Unpublished raw data.

measures were independent predictors of group identification for both participants' American identity and their ethnic identity (see Table 6.1). In other words, identification with both the superordinate group and the subgroups increased to the extent that each group was seen as satisfying the needs for inclusion and differentiation. In addition, indices of optimal distinctiveness were computed for the superordinate group and the participants' subgroups by summing participants' ratings of inclusion and differentiation need satisfaction for the two groups. Values on these indices were higher to the extent that participants viewed their superordinate group and their subordinate group as satisfying the needs for inclusion and differentiation. As shown in Table 6.2, the more optimally distinct participants perceived the superordinate group to be, the more they identified with both the superordinate group *and* the subgroup. Subgroup optimal distinctiveness only predicted subgroup identification. Finally, in this sample, subgroup identification and superordinate group identification were significantly positively related ($r = .24$, $p < .01$). However, the magnitude of this correlation varied depending on the optimal distinctiveness of the superordinate group. Among those participants who perceived the superordinate group to be less optimally distinct (based on a median split of the index of superordinate group optimal distinctiveness), the relation between superordinate group identification and subgroup identification was not significant ($r = .06$). By contrast, among those participants who perceived the superordinate group to be more optimally distinct, superordinate group identification and subgroup identification were positively related ($r = .31$, $p < .01$). These data support the proposal that dual identification (identification with both the superordinate group and the subgroup) is more likely to occur when the superordinate group is perceived to be optimally distinct.

Table 6.2 Zero-Order Correlations between Superordinate Group and Subgroup Optimal Distinctiveness and Superordinate Group and Subgroup Identification

		Superordinate Group Optimal Distinctiveness	Subgroup Optimal Distinctiveness	Superordinate Group Identification	Subgroup Identification
Superordinate group optimal distinctiveness	R	1	.149[a]	.592[b]	.123[a]
	Sig.		.014	.000	.042
Subgroup optimal distinctiveness	R		1	−.004	.619[b]
	Sig.			.942	.000
Superordinate group identification	R			1	.244[b]
	Sig.				.000

Source: Pickett, C. L., & Hess, Y. D. (2009). [Identifying the predictors of U.S. national identification and allegiance]. Unpublished raw data.

[a] Correlation is significant at the .05 level (two-tailed).
[b] Correlation is significant at the .01 level (two-tailed).

In summary, the preceding analyses provide support for the idea that the needs for inclusion and differentiation independently drive identification with superordinate and subordinate groups positioned within a nested structure. Of interest, subgroup identification was not shown to be antagonistic with superordinate group identification, particularly when both groups were seen as being optimally distinct.

Another study investigated whether optimal distinctiveness and need arousal could predict the conditions under which group members perceive subgroup and superordinate categories to be dueling identities versus a dual identity (Leonardelli & Joseph, 2009). To that end, Leonardelli and Joseph (2009) selected a natural nested categorization context, one with intergroup differences among superordinate categories. In this study, participants were students representing different business schools at a lesbian, gay, bisexual, and transgender (LGBT) MBA conference. These MBA students were also members of their business schools' LGBT student clubs. Thus, the business schools represented the superordinate social category, and the LGBT student clubs represented the subgroup.

In this context, it was expected that the superordinate group would be moderately inclusive, given the widespread representation of different business schools at the conference. The goal of the study was to determine under what conditions participants would simultaneously identify with the superordinate group (the business school) and the subgroup (their business schools' LBGT clubs). In prior applications

of optimal distinctiveness to nested categorization contexts (Brewer, 1993; Hornsey & Hogg, 1999), group members exhibited a preference for their subgroup over the superordinate group. However, in a nested category context, it is also possible for individuals to prefer the superordinate group over the subgroup. This may occur when the superordinate group is perceived to be optimally distinct, but the subgroup is not (i.e., it is perceived to be too exclusive). The study sought to test whether greater identification with the superordinate group over the subgroup would occur when the subgroup was perceived to be overly exclusive, and whether greater subgroup inclusiveness would allow for group members to simultaneously identify with their superordinate group (business school) and with their subgroup (their school's LGBT club).

Leonardelli and Joseph (2009) predicted that dueling identities would occur when the subgroup was extremely small, but that as the subgroup's inclusiveness increased, group members would be more likely to identify with the subgroup and the superordinate group to similar degrees. Finally, to make this a particularly strong test of the prediction and allow for greater predictive validity of optimal distinctiveness theory, the researchers also experimentally manipulated the needs for inclusion and differentiation. It was predicted that when the need for inclusion is activated, group members are particularly likely to identify more with the superordinate group than with the subgroup, but as the subgroup's inclusiveness increases participants are just as likely to identify with the subgroup as the superordinate group. By contrast, under the need for differentiation even extremely small subgroups should be perceived as a source of distinctiveness, and thus group members should be likely to identify with the superordinate and subgroup categories, regardless of how exclusive the subgroup is perceived to be.

The researchers thus expected a three-way interaction between need state (inclusion, differentiation), the subgroup's relative size, and identity type (subgroup, superordinate) to predict identity scores. Specifically, identity antagonism would occur—where individuals identify more with the superordinate group than the subgroup—when the subgroup's size was extremely small and the need for inclusion was aroused. Otherwise, individuals were expected to identify to similar degrees with their subgroup and superordinate group categories (thereby reporting a dual identity).

Upon agreeing to participate, participants were randomly assigned to read a paragraph intended to arouse their need for inclusion or differentiation using a standard procedure (e.g., Brewer, Manzi, & Shaw, 1993). Specifically, participants were asked to complete the survey because they are unique individuals different from the typical MBA student population

(need for inclusion) or they represent the typical MBA student (need for differentiation). Participants then estimated the percentage of students within their business school that belong to their school's LGBT club; scores ranged from 1% to 15%. Finally, they rated the degree to which they identified with their business school, using Luhtanen and Crocker's (1992) identity subscale of the collective self-esteem scale, and then completed the same measure with reference to their school's LGBT club. The study thus consisted of a need state (inclusion, differentiation) × subgroup size (continuous) × identity type (superordinate, subgroup) mixed design.

Analysis of identity scores revealed a marginally significant three-way interaction. Mean subgroup and superordinate identity scores were calculated using the equation generated from the general linear model at 1 standard deviation (SD) below and above the mean of subgroup size measure within the need for inclusion and need for differentiation conditions. These mean scores are presented in Table 6.3. Additional analysis revealed that when the need for inclusion was aroused, individuals were more likely to identify with the superordinate group than the subgroup when the subgroup was extremely small. However, the differences between superordinate group and subgroup identity were not significant when the subgroup was moderately small or when the need for differentiation was aroused. Altogether, these data support the notion that individuals can simultaneously identify with the subgroup and the superordinate group. Furthermore, supplementary analyses revealed that whereas there was a negative trend for the correlation between subgroup and superordinate identity when the need for inclusion was aroused ($r = -.30$), consistent with the notion that there was an antagonism between the two identities, there was a positive relation between subgroup and superordinate identity scores when the need for differentiation was aroused ($r = .46$).

Table 6.3 Mean Identity Scores by Need Arousal (Inclusion, Differentiation) × Subgroup Size (Continuous) × Identity Type (Superordinate, Subordinate)

	Inclusion Need		Differentiation Need	
	Extremely Small (−1SD)	Moderately Small (+1SD)	Extremely Small (−1SD)	Moderately Small (+1SD)
Superordinate group identity	4.83	4.13	4.36	4.27
Subgroup identity	3.20	4.38	4.26	4.01

Source: Leonardelli, G. J., & Joseph, J. E. (2009). [Nested identities by need state and subgroup size.] Unpublished raw data. Rotman School of Management, University of Toronto, Canada.

This study supports two conclusions: First, the evidence supports the notion that individuals will at times prefer to identify with the superordinate group than the subgroup as a function of subgroup and superordinate group inclusiveness and needs for inclusion and differentiation. Second, it systematically supports the notion that individuals are likely to engage a dual identity when individuals see both of the nested categories as favorable sources of optimal distinctiveness.

IMPLICATIONS

In this chapter, we have considered how the needs for inclusion and differentiation may influence group identification in nested category contexts. The conditions under which dueling identities versus a dual identity might emerge offer novel insights into the motivational processes that underlie individuals' preferences for superordinate group and subordinate group identities. In the following subsections, we consider the implications of these hypotheses for two specific social psychological phenomena: (1) prejudice and discrimination in intergroup contexts and (2) cultural assimilation.

Intergroup Prejudice and Discrimination

As a potential solution to the problem of intergroup hostility, discrimination, and prejudice, social psychologists theorize that recategorization of in-group and out-group members within a superordinate category may lead to more harmonious intergroup relations. For example, according to the common in-group identity model (Gaertner & Dovidio, 2000; Gaertner et al., 1993), perceiving out-group members as part of a larger group to which the in-group also belongs can reduce bias because the benefits of in-group favoritism are extended to those out-group members. In other words, intergroup attitudes should shift because people are motivated to perceive members of the in-group positively. Of importance, proponents of the common in-group identity model and others (e.g., Dovidio et al., 2009) argue that recategorization in the form of a dual identity, in which superordinate and subgroup identities are both salient, can reap the benefits of superordinate identity without requiring groups to forsake valued subgroup identities (e.g., racial and ethnic identities).

However, as we noted in "Explaining the Phenomena: Source of Superordinate Inclusiveness," dual identity will depend, in part, on how well the superordinate and subgroup identities meet group members' needs for inclusion and differentiation. If the superordinate category is perceived by group members as being too inclusive, then resistance to

recategorization may occur. This may be particularly true among individuals who have a high need for differentiation. Similarly, subgroup identities that are perceived to be overly exclusive may be unappealing because they fail to satisfy group members' needs for inclusion. Thus, the ideal circumstances for fostering positive intergroup attitudes via recategorization may be those in which both the subordinate and superordinate identities are able to satisfy the needs for inclusion and differentiation. To the extent that it is possible to engineer these circumstances what one might attempt to do is select superordinate identities that are of moderate levels of inclusiveness, direct group members' attention toward intergroup comparisons that are likely to foster the perception of optimal distinctiveness for both subordinate and superordinate identities, and/or directly influence the level of group members' needs for inclusion and differentiation. Each of these strategies is discussed in greater detail here.

Although recategorization of an in-group and an out-group as part of a superordinate group may result from naturally occurring circumstances, for example, when nations band together to fight a common enemy, recategorization may also occur from deliberate attempts to encourage in-group and out-group members to view themselves as part of a larger category. In organizational contexts, this might occur when company leaders explicitly encourage employees within the company to think of themselves simply as company employees and not as members of specific teams or units. Although there may be pragmatic reasons for selecting particular superordinate identities over others, the success of recategorization attempts may depend critically on how inclusive the superordinate category is perceived to be within the particular social context. Employees who see their organization as being distinctive relative to comparable organizations should have an easier time identifying with the superordinate organization. Thus, when possible, superordinate identities should be selected with an eye toward how well that identity can meet group members' needs for both inclusion and differentiation.

However, when the particular superordinate identity is predetermined and cannot be controlled, another strategy for fostering successful recategorization is to influence group members' perception of the distinctiveness of the superordinate category. One way to achieve this is by encouraging particular intergroup comparisons. When the superordinate group is compared to other inclusive social categories, the superordinate group may seem more exclusive by comparison. For example, warring departments within a university may have difficulty adopting

the superordinate category of the university because the university as a whole is less distinctive than each individual department. However, if the comparison frame were to switch from a vertical comparison to a horizontal one (Figure 6.2), the salient comparisons would then be between different superordinate groups (e.g., different universities). If their university is relatively distinctive compared with other universities, individuals may then be motivated to identify with the superordinate university category. Thus, to the extent that a horizontal comparison frame increases the perceived distinctiveness of the superordinate group, subgroup members should be more likely to identify with the superordinate group and engage in recategorization. For this reason, shifting group members to a horizontal comparison may be a useful strategy for promoting recategorization and more positive intergroup relations.

In organizational contexts, this has the potential benefit of increasing focus on external comparisons (e.g., competitors) while simultaneously increasing cooperation across divisional or cross-functional areas within the organization. Thus, dual identification within workplace hierarchies may lead to increased productivity and team performance. This idea is consistent with studies on the motivational effects of social comparisons within corporate hierarchies (Joseph & Gaba, 2010) and posits a critical role for identification with groups at multiple levels within an organization.

A third strategy for fostering recategorization is to directly influence group members' needs for inclusion and differentiation. Arousing the need for inclusion may motivate group members to identify more with the superordinate category than they otherwise might, whereas arousing the need for differentiation may motivate group members to identify more with the subgroup than they otherwise might. The data referenced in Table 6.3 are consistent with this notion; when the need for differentiation was aroused, group members were just as likely to identify with an extremely small subgroup as they were with a moderately inclusive subgroup, but this was not the case when the need for inclusion was aroused. An interesting question is under what conditions will need arousal lead group members to identify with extremely inclusive or exclusive groups. Since the theory's inception (Brewer, 1991), optimal distinctiveness theory has argued that individuals try to meet both of the countervailing needs for inclusion and differentiation. If so, then identification with these extremely inclusive or extremely exclusive groups may be unstable; individuals identify with these extreme (and nonoptimal) groups until individuals feel the need has been met. This speculation remains open and would benefit from empirical testing.

Cultural Assimilation

The research literature on immigrants and their experience in integrating into their new host countries suggests that this process can be quite different for different individuals. In one model of acculturation, Berry (1998, 2001) identified four types of individuals (integrated, assimilated, separated, and marginalized) based on the extent to which these individuals maintained their home cultural heritage and the extent to which they engaged in contact with members of the new host country. Recent research by Benet-Martinez and her colleagues (Benet-Martínez & Haritatos, 2005) on bicultural identity integration (BII) also supports the notion that individuals differ in how they approach the two identities of their home and host cultures. Although this growing body of literature has done a good job of characterizing the experience of different immigrants, more research is needed to fully understand the different motivational forces that might lead immigrants to be more or less assimilated into their host culture and what leads some immigrants to feel that their two identities are integrated versus separate. In the context of individuals who have immigrated to the United States, they are faced with a large superordinate identity (Americans) and also with the subgroup identity that encompasses Americans who share their national heritage (e.g., other individuals who have emigrated from China). Thus, one way of characterizing the immigrant context is in terms of nested categories. Given this view, it is possible to apply an optimal distinctiveness approach to the immigrant context and explore the implications of these hypotheses for predicting the psychological experience of immigrants.

According to Berry's (1998, 2001) acculturation model, integrated individuals are those who not only want to maintain their identity with their home culture, but also want to take on some characteristics of the new culture. Assimilated individuals do not want to keep their identity from their home culture but would rather take on all of the characteristics of the new culture. Separated individuals want to maintain their identity with their home culture and separate themselves from the new culture. Marginalized individuals have neither the desire to maintain their old culture nor any desire to take on the characteristics of the new culture. Although a variety of factors likely influences which of these types immigrants fall into, we argue that the ability of the superordinate and subgroup identities to satisfy immigrants' needs for inclusion and differentiation is one important determinant. As immigrants move to their new culture, they are likely to experience a dramatic shift in the structure of their social identities. Identities that were distinctive

in their home culture may be nondistinctive in the new culture and identities that had provided a strong sense of inclusion in their home country may no longer do so in the new country. Thus, need satisfaction might be of heightened concern to new immigrants and thus particularly influential in determining the nature of immigrants' relationships to their subordinate and superordinate identities.

Our model predicts that integration of the two identities is most likely to occur under conditions in which immigrants derive a sense of inclusion from the superordinate identity and also see the superordinate identity as being distinctive. A common phenomenon among new immigrants is that they will often start out living and working in homogenous communities comprised of other members of their subgroup (e.g., immigrant enclaves; Abrahamson, 1996; Wilson & Portes, 1980). These communities can not only provide new immigrants with material and economic resources but may provide a psychological resource as well in the form of satisfaction of the need for inclusion. As immigrants become more acculturated (e.g., they learn the host language and become more conversant in the new culture and its norms), they may begin to derive feelings of belongingness from their superordinate identity. When this happens one should observe a concomitant shift in dual identification. By the same token, for new immigrants the superordinate identity may seem quite large and they may lack the cultural knowledge needed to appreciate the distinctive aspects of their new culture. Thus, once again, a period of acculturation may be a necessary precursor to dual identification for many immigrants.

The concept of dueling identities is captured most clearly among the category of separated and assimilated immigrants. These individuals have chosen to move or stay close to one identity and forsake the other. Again, there may be a multitude of reasons for why these individuals have chosen one identity over the other, but one possible interpretation originates with the needs for inclusion or differentiation: separated immigrants perceive the superordinate identity as being too inclusive and thus they reject that identity in favor of their subgroup identity, and assimilated immigrants perceive their subgroup identity as lacking inclusiveness (perhaps they have emigrated from a country for which no community exists in their new culture) and thus they reject their subgroup identity and assimilate fully to their new culture.

In summary, it is possible to examine the cultural assimilation process from an optimal distinctiveness perspective. Doing so not only suggests potential reasons for why some immigrants are integrated whereas others are assimilated, separated, or marginalized but

also offers avenues for improving the experience of immigrants. For example, messages that highlight how immigrants have been integral to the United States since the nation has been founded may have the effect of increasing perceptions of belongingness and may ultimately foster greater assimilation to the American superordinate identity.

CONCLUSION

This chapter considers the role that the need for optimal distinctiveness plays in predicting group identification in nested category contexts. Previous applications of optimal distinctiveness theory to nested category contexts (Brewer, 1993; Hornsey & Hogg, 1999) reveal that individuals are more likely to identify with a subgroup over a superordinate group as the superordinate category's inclusiveness increases. Our review of the literature leads us to conclude that this effect depends on the kind of social comparison used to determine the superordinate category's inclusiveness. Furthermore, we argue that one type of social comparison—horizontal comparisons—allows for the possibility that group members might perceive both their subgroup and superordinate categories as optimally distinct, thereby allowing individuals to engage a dual identity.

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7

AGENT-BASED MODELING AS A TOOL FOR STUDYING SOCIAL IDENTITY PROCESSES

The Case of Optimal Distinctiveness Theory

Cynthia L. Pickett, Paul E. Smaldino,
Jeffrey W. Sherman, and Jeffrey Schank

Researchers studying social identity and intergroup relations have traditionally approached group behavior as an interaction between the individual, the group, and the social context in which the individual and group are embedded. This approach has been quite fruitful, as evidenced by the proliferation of theories and studies over the last several decades that have identified the psychological and sociocontextual features that are likely to give rise to particular group behaviors (e.g., in-group bias, discrimination, intergroup hostility). However, these theories are based largely on how *individuals* are predicted to respond and behave under particular circumstances, often without explicit consideration of the interdependence among individuals or the group-level outcomes that may emerge as a result of the interactions among individual actors. This approach is similar to a traffic engineer attempting to understand traffic patterns by examining the motivations and behaviors of individual drivers. Individual-level theories may tell the engineer that drivers attempt to maximize the speed of their car and avoid erratic fellow drivers. But understanding why traffic jams occur requires consideration of how the behavior of one driver affects the behavior of multiple other drivers and how these behaviors unfold over time. In this chapter, we echo the sentiment of other researchers

(e.g., Goldstone & Janssen, 2005; Smith & Conrey, 2007) and argue that understanding group-level phenomena requires studying both individual-level processes and the global structures that emerge as a result of interactions among individuals.

Although the accumulated research within social psychology has provided the field with many good theories of how individuals react and behave in group contexts, we know relatively little about how these individual-level behaviors contribute to larger patterns of group behavior (e.g., intergroup segregation, status hierarchies, group formation). To understand these patterns of group behavior, psychologists have focused primarily on the psychological needs that individuals attempt to satisfy through their group memberships. For example, according to social identity theory (Tajfel & Turner, 1979), individuals are hypothesized to associate themselves with groups that compare positively to other groups as a means of bolstering self-esteem. Other theories, such as optimal distinctiveness theory (ODT; Brewer, 1991), focus on individuals' desires for inclusion and distinctiveness from others as predictors of group identification. Although social-psychological research has advanced our understanding of the psychological underpinnings of group identification, the work is limited by the tendency for researchers to focus on single motivations as opposed to multiple motivations operating simultaneously. In addition, the work relies heavily on studies of individual actors without considering the interdependencies among the actors or the large-scale patterns of outcomes that emerge when multiple actors connected within social networks interact and mutually influence each other over time.

On the other side of the coin, group formation has been a topic of interest within fields such as sociology and computer science, where the emphasis has been on studying how groups and communities evolve (e.g., Backstrom, Huttenlocher, Kleinberg, & Lan, 2006). However, this research typically lacks an explicit treatment of the intraindividual processes that guide the behavior of individual actors. For example, studies in this area may tell us that groups tend to fragment after reaching a particular size, but they are silent regarding what motivates individual actors to exhibit the behavior that gives rise to this emergent pattern (for an exception, see Grönlund & Holme, 2004).

The primary goal of this chapter is to discuss the potential benefits of applying a systems-oriented approach to the study of social identity processes and group behavior. In particular, we have been utilizing agent-based models (ABM) in our own research to explore hypotheses inspired by ODT (Brewer, 1991). Agent-based models simulate the behavior of individuals through the creation of virtual agents who

follow preprogrammed rules. These rules are often derived from existing psychological theories. What is of interest, however, is what *emerges* from the interactions among these agents (Goldstone & Janssen, 2005). Two decades of research on ODT has resulted in an impressive array of studies that demonstrate that the needs for inclusion and differentiation can have profound effects on the perceptions, judgments, and behavior of individuals (Leonardelli, Pickett, & Brewer, 2010). For this Festschrift volume in honor of Marilynn Brewer's prolific research career, it seemed fitting to take the study of optimal distinctiveness to a different level of analysis and explore the patterns of group behavior that emerge from a system of autonomous agents who follow one very simple rule: seek optimal distinctiveness.

In this chapter, we first describe agent-based modeling and review some examples of how ABM has been successfully used to further the field's understanding of important social psychological phenomena. We then describe our recent efforts at developing an agent-based model to examine the macrostructures that emerge when agents are programmed to seek optimal distinctiveness and continue with additional examples of how ABM might be fruitfully applied to study the emergent outcomes of the motives of individual group members. We then conclude with a discussion of the benefits of agent-based modeling for the study of social psychological phenomena more broadly.

WHAT IS AGENT-BASED MODELING?

Social behavior, from persuasion and attitude change, to interpersonal relationships, to group interactions, results not only from the intrapsychic psychological processes of isolated individuals but also from interactions among multiple individual agents over time. In fact, in many cases, collective outcomes differ drastically from what any party expects or desires. For example, in studies of bystander intervention, because all participants assume that someone else is helping, the outcome is that no one helps. In the case of the commons dilemma and other social dilemmas, when self-interested individuals overuse a resource (grazing grounds, fisheries) or use a resource without paying for it (public television), the resource may be destroyed to the detriment of all. Despite the importance of these "emergent" effects among individual actors, explanations of such phenomena among social psychologists have focused almost exclusively on the processes that characterize how isolated individuals perceive, understand, and react to various stimuli.

At the same time, other disciplines have focused almost entirely on aggregate or population-level outcomes of social behavior. For example,

economic, sociological, and political-science research often seeks to explain the proportions of populations that adopt a particular innovation. Researchers in sociology and physics have focused on social information networks and the flow of information through these networks that results in opinion convergence, group formation, and other outcomes. In contrast to the individual, process-oriented approach of social psychology, these approaches are largely unconcerned with the intrapsychic processes that characterize the psychology of individual actors. What happens to specific individuals and why are not of concern; rather, the concern is what happens to whole populations over time.

In recent years, researchers have increasingly sought to integrate the individual, process-level approach with the aggregate, group-level approach to provide a fuller understanding of social psychology and behavior (for a review, see Smith & Conrey, 2007). Perhaps the most effective means of combining these approaches is through the use of agent-based modeling (also called *multiagent modeling*). An agent-based model is a simulated multiagent system that can be constructed to capture key elements of social psychological processes and behavior. In such systems, each agent typically represents an individual human acting according to a set of established behavioral motives and rules. These behavioral motives and rules generally reflect the kinds of individual-level processes that have been widely studied by psychologists. In an ABM, many simulated agents interact with one another and/or their environments over simulated time, based on the individual processes that guide the agents' actions. Importantly, the outcomes of the agents in such a system are interdependent: each agent's ability to achieve its goals depends not only on what it does but also what other agents do. Thus, the model permits observation of the emergent, aggregate consequences of many agents interacting interdependently and dynamically over a period of time (for a recent example, see Mason, Conrey, & Smith, 2007).

In essence, then, ABM is a tool for bridging the individual and aggregate levels of analysis. The extensive knowledge that psychologists have garnered regarding individual-level psychology is implemented by the rules that guide the behavior of individual agents. These processes also may be represented in the rules governing the natures and outcomes of interactions among agents. The aggregate level emerges as the multiple agents interact with one another and the environment over time. Beyond integrating these different levels of analysis, the great advantage of this approach is that, in many cases, the consequences of multiagent interactions over time fail to match what might be expected based on the behavioral propensities of individual agents, as in the cases of bystander intervention and the commons dilemma. Such emergent

processes are all but impossible to study in the context of controlled laboratory experiments.

Some Illustrative Examples

Segregation   In one of the earliest applications of ABM in the social sciences, Schelling (1971) examined how segregation between social groups can arise through the actions of individual agents, even when no agent specifically desires segregation. Schelling's model assumed that each agent used a single, simple rule: do not be in the minority in your neighborhood. To implement the model, agents moved to random empty spaces if the proportion of "in-group" agents surrounding their current space fell below a certain threshold, such as 50%. The rule was applied until all agents stopped moving, settling into their spaces. The final result, which occurred under a wide range of moving thresholds, was almost complete segregation among the agents, with clear group boundaries. This model was important because it offered the counter-intuitive conclusion that extreme segregation may inevitably result from the extended interactions and choices of individuals who do not necessarily desire extreme segregation. The model also makes clear that such an outcome does not require the intervention of a central, orga-nizing agency (e.g., real-estate agents) in order for segregation to occur, but rather may emerge in a self-organized fashion from individual-level motives. Finally, the model was important in demonstrating the signifi-cance of an agent's definition of *neighborhood*. When agents were pro-grammed to define their neighborhoods narrowly, segregation was a very likely outcome. In contrast, if agents defined their neighborhoods more broadly (e.g., the whole population of agents in a wider region—a city vs. a neighborhood), extreme segregation was far less likely.

Mate Choice   Kalick and Hamilton (1986) used ABM to simulate the well-known empirical fact that people tend to end up with romantic partners of about equal attractiveness to themselves. Highly attrac-tive people end up with highly attractive people, moderately attractive people end up with moderately attractive people, and so on. A com-mon explanation for this fact was that people actively seek partners with similar levels of attractiveness, presumably due to the fear of being rejected by more attractive prospects (e.g., Berscheid, Dion, Walster, & Walster, 1971) or from a general preference for similarity in all attri-butes. However, repeated studies found no support for the proposed similarity preference. Instead, all people demonstrate a strong prefer-ence for the most attractive potential partners (e.g., Curran & Lippold, 1975). Kalick and Hamilton sought to resolve this paradox via ABM.

In their simulation, 500 "male" and 500 "female" agents were given attractiveness values and then were randomly selected in pairs. Upon selection, the two agents paired off together only if both agents extended an offer to the other. The process continued until all agents were paired. When the likelihood of an offer was set to correlate with the attractiveness of the potential partner (e.g., .9 for a 9/10 on attractiveness, .1 for a 1/10), the result was a correlation in attractiveness of the two agents of around .5 to .6—matching the observed level among humans. The simulation showed that this result occurs because the most attractive agents tend to pair up early and are, therefore, removed from the population. As time passes, the attractiveness of the remaining agents decreases. Once again, the value of this model is in demonstrating the counterintuitive effects of a simple rule (seeking the most attractive possible partner) iterated dynamically across many agents and over time.

Person Perception   More recently, Smith and Collins (2009) used ABM to simulate the processes by which impressions of people are constructed, transmitted, and filtered through social networks. Among other variables, their model assigned values to agents representing how probable they were to "behave" in a positive or negative manner. The model assumed that agents will repeatedly interact only with agents who act positively toward them. One outcome was that agents formed more negative impressions of other agents than was warranted by the agents' probabilities of positive and negative behaviors. This result is due to the fact that positive interactions with an "unlikeable" agent could be corrected through repeated interaction, whereas negative interactions with an objectively "likeable" agent are not corrected because they result in decreased future interaction (see Denrell, 2005, for a mathematical model of this process). The model also showed that when agents are permitted to "gossip" with one another about third-party agents, impressions of the third parties became less negative, even though the communicating agents were likely to have equally negative views of the third party. This is because the opportunity to gossip with one another provided agents with a larger sample of information about the third party, which more accurately described the overall positivity of the third party. Thus, this model showed that simple rules about interacting and communicating with other agents have important effects on the nature and accuracy of social impressions when the processes iterate across multiple agents and over time. These outcomes had not been anticipated based on what had been known about individual-level impression formation processes. A particularly useful feature of this model is that it included three different levels

of variables: (1) individual-level variables that described the internal workings of the agents, (2) dyadic-level variables that described how pairs of agents interact, and (3) system-level variables that described how influence spread through the whole community of agents.

APPLYING AGENT-BASED MODELING TO OPTIMAL DISTINCTIVENESS THEORY

According to ODT (Brewer, 1991), social identity is conceptualized as deriving from a "fundamental tension between human needs for validation and similarity to others (on the one hand) and a countervailing need for uniqueness and individuation (on the other)" (p. 477). Membership in moderately sized groups is considered to be optimal because there is a sufficient number of other individuals in the group, which allows for a sense of inclusion and belonging with other group members. At the same time, however, the group can be used as the basis for distinguishing the individual from nongroup members, thereby satisfying the need for distinctiveness. For example, a person may choose to join a group of sailing enthusiasts because doing so provides a sense of belonging with fellow sailors, while simultaneously allowing the individual to be distinguished from others (e.g., runners).

Existing research supports the idea that people prefer memberships in distinctive social groups (e.g., Leonardelli & Brewer, 2001; Pickett, Silver, & Brewer, 2002), but this work is based primarily on people's subjective reports of their existing group memberships and does not examine how group formation processes are shaped by the needs for inclusion and distinctiveness. Furthermore, tests of ODT have often been limited to experimentally heightening the need for either inclusion or distinctiveness (e.g., Pickett et al., 2002) and have not been able to precisely examine the patterns of behavior that emerge at varying levels of the needs for inclusion and distinctiveness. Finally, these tests of ODT generally hold variables such as status constant, and thus we know relatively little about how the needs for inclusion and distinctiveness play out in the context of other competing motives (e.g., self-esteem).

Current Research Program

As an initial step toward closing these research gaps, we have embarked on the development of a program of research in which we apply agent-based modeling to the study of social identification processes and group behavior. The overarching goal of this research program is to gain insight into global patterns of group behavior (e.g., the formation and

dissolution of groups, the emergence of group-based status hierarchies) by modeling the behavior of individual actors and examining the dynamic outcomes of the interactions among those actors.

Because simplicity is a virtue in the world of agent-based modeling, our first attempt at examining individual-level social identification processes and subsequent macrolevel outcomes centered on the relatively simple question of how the individual-level desire for membership in an optimally distinct group influences group formation and dissolution processes. In existing experimental tests of ODT, arousal of inclusion and distinctiveness needs led study participants to exhibit a preference for groups that were most likely to meet those needs (e.g., groups that were at an optimal level of inclusiveness). However, a group's level of inclusiveness is not static and, in fact, may be in a constant state of flux particularly when group boundaries are relatively permeable. This led us to the assumption that the desire for optimal distinctiveness at the individual level pushes individuals toward joining or leaving the groups based on the size of the group and the individual's preferred level of group inclusiveness. In addition, we sought to examine the macrolevel outcomes of this process. A reasonable prediction is that in a multigroup environment, a number of moderately sized groups will emerge such that all agents in a system are able to meet their optimal distinctiveness goal. In other words, as agents join groups of the desired size, they will stay in those groups unless the groups become overly large or overly small until the whole system settles into a state of equilibrium. Thus, in an ideal world, the end equilibrium state will contain groups whose sizes match the preferred level of group inclusiveness of the individuals in that system.

However, this ideal split might be difficult to achieve for a variety of reasons. First, in the real world, when a popular commodity exists, there can often be an overabundance of interest. For example, when a new checkout lane opens up at a grocery store, for a short while it has the shortest line at the store. However, as people standing in line at other lanes switch to the newly opened lane, it quickly develops a line just as long as the other lanes until all the lines are of roughly equal length. Although all individuals at the store seek the shortest line, a comparatively short line does not exist for very long. Second, through simple random fluctuations, frontrunners can emerge early in a contest leading to the demise of other contestants. In social groups, groups that start off closest to an optimally distinct size may become overwhelmingly popular such that the less popular groups shrink over time until they reach the point of nonexistence, ironically leading to groups at the end that fail to be optimal.

Simulation Environment

Our plan in setting up our simulations was to vary specific aspects of the modeling environment—the number of initial groups, the number of agents, the number of other agents that any particular agent could "see" in their environment (i.e., the local environment), and the optimal distinctiveness seeking rule (e.g., agents' preferences for groups of a particular size)—and then to observe the movements of the agents and the ultimate patterns that emerge. For our simulations, an agent-based model was written in Java, using the MASON simulation library (Luke, Balan, Panait, Cioffi-Revilla, & Paus, 2003). MASON is a discrete-event multiagent simulation package that can be used to model a wide range of dynamic events, for example, swarms and complex social interactions. The program also allows users to visualize the movement of individual agents and the patterns that these movements produce.

Our initial simulations focused primarily on varying the group-size preferences of the individual agents (while holding other aspects of the simulation environment constant) and examining the number and size of the groups that emerged. What this meant for the individual agents is that they all followed the rule of joining whatever group was closest to the preference value set for that simulation (e.g., 33%, 25%, 45%). If the most optimally distinct group in the agent's local environment happened to be the group to which the agent already belonged, the agent kept their group membership. If a different group was more optimally distinct in the agent's environment at that particular time step, the agent would discard its current group membership in favor of the more optimally distinct group membership. Agents assessed their group memberships asynchronously. After specifying these parameters, we allowed the program to run—that is, proceed through a series of time steps where an assessment of the local environment and the opportunity to change group membership occurred at each time step—until the system reached an equilibrium point and a stable pattern emerged.

The most notable finding that emerged from these simulations was the number and size of the groups that were produced. When a multigroup environment was set up at the outset (e.g., four equally sized groups or six equally sized groups), programming agents to prefer membership in groups that represented 33% of the population resulted, ironically, in the formation of two groups of equal size (each representing 50% of the population). Because all agents in the simulation were programmed to join the group in their local environment that was closest to the preference set point, agents tended to gravitate toward the same groups. With each time step in the simulation, less popular groups

drifted further from the preference set point until they were no longer represented in the environment. Additional simulations that varied the group-size preference of the agents incrementally always resulted in the formation of groups that were less than optimal (i.e., which failed to match group members' size preferences). These simulations suggest that when all individuals within a particular environment share the exact same preference for a particular group size, their joint actions may actually impede the formation of groups of the preferred size. In future simulations, it will be of interest to explore what conditions would actually lead to the optimal satisfaction of agents' group-size preferences. It may be the case that when preferences are distributed more normally, more adaptive patterns of group formation emerge.

These results highlight the fact that the creation of optimally distinct groups does not simply happen because each individual group member desires membership in a group of optimal size. As in the real world, these simulations do not involve an omniscient being who has complete knowledge of the environmental space and can assign group memberships in a way that ensures an optimal group size. Instead, individual agents make choices based on the choices of other agents, and the result can sometimes be less than desired, as was the case in the simulations presented here. However, it is important to keep in mind that there are many simulations that could be run and the outcomes of those simulations may differ from the simulations presented here. Thus, our results should not be taken to mean that the spontaneous formation of optimally distinct groups cannot emerge, but rather that the formation of optimally distinct groups did not emerge under the conditions that were specified here.

Future Applications of Agent-Based Modeling to Optimal Distinctiveness Theory

As noted above, in future research, agent-based modeling can be used to examine the conditions under which the needs for inclusion and distinctiveness—as well as self-esteem—actually do lead to the formation of optimally distinct groups. A central tenet of ODT is that group identification will be greatest among groups in which the needs for inclusion and distinctiveness are equally satisfied. Thus, we plan to run simulations to determine whether attempts to satisfy this "equal satisfaction" constraint lead to the formation of groups that are of moderate size (i.e., optimally distinct). Over time (i.e., sequential time steps of the model), agents could band together into groups, and groups that are very small compared to other groups in the context might expand (by attracting other members) and groups that are very large might

contract (by expelling members). These patterns of expansion and contraction could ultimately lead to convergence on a set of moderately sized groups to which most members of the population belong.

We are also very interested in the larger scale patterns that emerge from the individual-level needs for belonging, distinctiveness, and self-esteem. Using U.S. census data, Lau (1989) examined the extent to which African Americans in various settings reported feeling close to other African Americans. Lau found group identity to be strongest among African Americans who lived in areas in which 40%–70% of the population was also African American. It is possible that living in areas that are neither predominantly white nor predominantly African American creates an optimal level of both distinctiveness and inclusiveness for African Americans, thereby fostering greater group identification. Because of the difficulty of studying migratory patterns of populations in real time and the inability to experimentally manipulate features of real-world social contexts, agent-based modeling provides a very useful tool for studying the influence of the needs for inclusion and distinctiveness on the formation of groups in geographical space. Tests of ODT have not examined whether group members migrate to particular locations as means of satisfying their needs for inclusion and distinctiveness. Through agent-based modeling, we can create populations with simulated neighborhoods and vary the initial numbers of group members in various neighborhoods. We can then create agents with inclusion- and distinctiveness-seeking rules and examine whether agents tend to settle in neighborhoods where there are a particular percentage of other in-group members in that neighborhood. More specifically, what one might expect are neighborhoods that are dominated by groups that each share a moderate proportion of the population (e.g., 35%) as opposed to highly heterogeneous neighborhoods with many groups with a small share of the population. Furthermore, we can examine how features such as initial proximity to other group members and interaction patterns among agents contribute to these migration patterns.

In addition to examining the group formation process, a fruitful avenue for future research is examining the dissolution of groups and the formation of subgroups. According to ODT, feelings of deindividuation should motivate people to adopt more exclusive group identities as opposed to seeking total individuation. Thus, the need for distinctiveness can be satisfied in two complementary and sometimes sequential ways: (1) making *intragroup* distinctions, that is, dividing an overly inclusive group into more distinctive subgroups with which to identify, and (2) making *intergroup* comparisons between one's subgroup and

another subgroup. Although subgroup differentiation is a proposed outcome of the operation of inclusion and distinctiveness needs within a group context, very few studies have specifically tested the hypothesis that people respond to membership in an overly inclusive group by engaging in a drive for subgroup distinctiveness. In addition, the studies that do exist (e.g., Hornsey & Hogg, 1999) use outcome measures, such as bias against other subgroups, as indicators of differentiation as opposed to examining the splintering and division of groups as they occur over real time. An advantage of ABM is that it provides a window into the differentiation process as it occurs over simulated time. We can assign agents to highly inclusive groups and study how the relative strength of the needs for inclusion and distinctiveness affects the formation of subgroups (e.g., the number of subgroups formed and the stability of the groups). It is also possible to model group dissolution—when members abandon a group altogether—to see whether the psychological forces under study are sufficient to produce that outcome.

USING AGENT-BASED MODELS TO STUDY GROUP-BASED STATUS HIERARCHIES

In addition to using ABM to study processes directly related to ODT, ABM can be applied to other questions of interest to social psychologists. In this section, we describe how ABM might be employed to study the conditions that lead to the emergence of group-based status hierarchies.

Most modern human societies are characterized by the presence of group-based status hierarchies. Although these hierarchies may be predicated upon different features (e.g., age, gender, education level), what these hierarchies have in common is the presence of one or more dominant social groups that enjoy disproportionate social advantages while other groups suffer disproportionate social disadvantages (Sidanius & Pratto, 1999). In addition to being pervasive, these hierarchies also tend to be both stable and consensual in that there is typically high agreement among society members on the ordering of groups within the status hierarchy. For example, Sidanius and Pratto (1999) asked 723 UCLA undergraduates to rate the social status of five ethnic groups (whites, Asians, Arabs, blacks, and Latinos). These researchers found extremely high consensus among respondents in the ratings of the groups (average intraclass $r = .999$) and found that this consensuality in the perceived social status of American ethnic groups was largely unaffected by the group to which the respondent belonged.

Although the ubiquity of group-based status hierarchies in modern human societies is widely acknowledged, less agreement exists regarding the proximal mechanisms that drive these hierarchies. Traditional theories of prejudice argue that group-based hierarchies are a product of oppression by members of the dominant social group. Through both individual acts of discrimination and institutional discrimination, dominant groups can subjugate others and maintain their status differential. Other theories such as social dominance theory (Sidanius & Pratto, 1999) and system justification theory (Jost, Banaji, & Nosek, 2004) take a different stance and propose that members of groups at the low ends of the status hierarchy are also active contributors to their own oppression. By supporting policies that favor dominant groups and adopting ideologies that justify the hierarchy, subordinates contribute to the formation and maintenance of these hierarchies. A third perspective on the formation of group-based hierarchies comes from SIT (Tajfel & Turner, 1979). According to SIT, the need for self-esteem is thought to lead group members to adopt various behavioral and cognitive identity management styles. One of these identity management styles is social competition, a form of intergroup discrimination that is used to create or protect high in-group status.

It is clear that many forces may be involved in the formation of status hierarchies. Yet it is also possible that a phenomenon as complex as the formation of group-based hierarchies may emerge from a fairly simple set of psychological motives. Within the social-psychological literature, researchers have had a long-standing interest in understanding the motivational underpinnings of social categorization and group identification. Work in this area has revealed a core set of motivations (self-esteem, distinctiveness, belongingness, uncertainty reduction, and power) that appear to drive individuals to seek out group memberships and that predict individuals' loyalty and adherence to groups. Traditionally in this area, researchers have tended to develop simple motive-feature match models that predict that identification should be strongest when individual motives and group features match (Riketta, 2008). However, researchers have typically not considered what happens when individuals attempt to satisfy multiple motives simultaneously. In addition, in the real world (i.e., outside the psychological laboratory), individuals are embedded within social networks (e.g., societies) where they interact and mutually influence each other. Thus, particular patterns of broader-scale outcomes may emerge as a function of multiple individuals with different sets of motivations interacting over time. However, it is impossible for simple, nondynamic models to adequately capture these emergent patterns.

We propose that group-based status hierarchies may be one such emergent pattern. Individuals within a society are motivated to form or join groups that allow them to feel a sense of belonging with others and a sense of distinctiveness, and that also confer positive social value, which in turn fosters self-esteem. Individuals attempting to satisfy all three of these needs simultaneously should be motivated to form or join relatively small, high-status groups. We predict that all agents in a particular context will want to join the highest status group available and that interaction patterns among agents will create a hierarchical structure. High-status groups should form relatively quickly and then begin excluding other members from the group once the group reaches a certain size (because group members need the group to be small in order to satisfy their need for distinctiveness). Once the highest status group becomes highly restrictive, a second-tier group will form, and so forth. In both laboratory and real-world settings, it is very difficult to observe group formation processes as they evolve. For this reason, agent-based modeling may be particularly useful for testing hypotheses regarding the relationship between individual-level psychological motives and the emergence of group-based status hierarchies.

This research would provide the first ABM examination of the hypothesis that group-based status hierarchies can arise simply from the desire of individual actors to satisfy basic psychological needs. A unique aspect of this particular model is that it suggests that although prejudice and discriminatory practices may contribute to the formation of status hierarchies, these processes may not be necessary and may, in fact, be epiphenomenal. In addition, the modeling would allow one to test whether varying particular features of the interactions among agents in a system and the strength of the different psychological motives leads to different emergent patterns. For example, if the need for distinctiveness is low, there may be greater tolerance for larger social groups resulting in a status dichotomy (one low-status group and one high-status group) as opposed to a proliferation of smaller groups arrayed in a hierarchy. This work has the potential to reveal new insights into the nature of group-based status hierarchies and can allow for the rapid generation of additional testable hypotheses.

CONCLUSION

To date, almost all scientific analyses of group formation and change have focused on either the individual-level, psychological processes that influence the behavior of autonomous persons or aggregate-level outcomes that describe the end states of multiagent interactions. Individual-level

analyses do not consider the operation of psychological processes in the context of multiple interdependent agents that interact over an extended period of time. Aggregate-level analyses rarely concern themselves with the psychological motives and processes of individual actors that define the nature of interactions among multiple agents and that play a determinative role in aggregate outcomes. The agent-based modeling that we are conducting combines these two levels of analysis, permitting a richer and more nuanced understanding of how individual-level psychology and group-level behavior interact to produce important outcomes.

By examining multiagent interactions over time, agent-based modeling can reveal important emergent effects that could not be predicted only on the basis of knowledge of individual-level processes. At the same time, the ability to independently manipulate the nature of the agents' individual and dyadic motives and behavior permits direct tests of the roles of these processes in producing aggregate outcomes. Finally, the ABM environment permits the manipulation of social context-level variables that are difficult to systematically vary in laboratory experiments. The ability to examine multiagent interactions over time also is a unique feature of agent-based modeling that cannot be accomplished with standard behavioral laboratory methods.

Yet another important feature of the agent-based modeling approach is its usefulness for theory development. Decades of behavioral laboratory research form the basis for the rules governing the individual-level behavior of agents in the model. However, ABM simulations frequently produce novel and unexpected outcomes that could not have been predicted from individual-level research. These outcomes can then form the basis for further traditional behavioral research, suggesting novel hypotheses to be tested at the individual level. For example, Kalick and Hamilton's (1986) model of mate selection generated the novel prediction that mate pairs formed later in time will be less attractive than those that formed earlier. This, of course, can be directly tested with human participants in a laboratory. Similarly, it is likely that agent-based models that are developed to study group formation and change will generate new hypotheses about how different individual-level motives interact under different conditions. These hypotheses can then be tested in the laboratory. In this way, research moves back and forth between models and empirical investigations (Smith & Conrey, 2007). Thus, agent-based modeling permits the examination of emergent properties that cannot be studied at the individual level, but also suggests novel individual-level hypotheses for testing.

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8

RELIGION AS COLLECTIVE IDENTITY

Ann C. Rumble

"Religion is the individual and social experience of the sacred that is manifest in mythologies, ritual, ethos, and integrated into a collective or organization…"

Swenson (1999, p. 8)

In a recent survey conducted by the Pew Forum on Religion, 71% of Americans surveyed believe in the absolute certainty of God, 82% say religion is at least somewhat important in their lives, and 53% attend religious services on at least a monthly basis (Pew Forum on Religion and Public Life, 2008). Religion is a powerful force in the personal, social, and political lives of a significant portion of the population of the United States and the world. Religion has a positive impact on members and within group interactions. Members of a religious community in comparison with nonmembers have an increased sense of psychological well-being, as well as improved health and longevity (McCullough & Willoughby, 2009). Cooperation within large religious communities increases, and in individuals with higher levels of religiosity, who are reminded of an omnipresent God, trust and other prosocial behaviors also increase (Norenzayan & Shariff, 2008). Religion, while having a significant impact on the individual, has an impact on society in general. Religious groups influence the political trajectory of a number of countries, including the United States, Egypt, the Netherlands, and Pakistan (Wellman & Tokuno, 2004). For example, the Muslim Brotherhood strives to establish Sharia

law (or Islamic law) as the law of the land in many Middle Eastern countries, including Egypt, Syria, and Bahrain (Abed-Kotob, 1995). Religious differences have been the source of multiple intergroup conflicts in Israel, Northern Ireland, and former Yugoslavia. So, despite philosophers' assertions that we are entering an age where science and reason will dominate society's discourse and that the power of religion is fading (Russell, 1952), much evidence suggests religion remains a powerful force for significant portion of world's population.

Religion remains a potent source of attitudes, motivation, and behavior because it provides its members with both a coherent meaning system and a collective identity. In this chapter, I will argue that one reason why religion remains such powerful force in individuals' lives is that it is inherently a social endeavor that provides members with a strong collective identity. To achieve this goal, I will rely on Marilynn Brewer and her colleagues' extensive work on the importance of the collective in structuring identity and shaping behavior and cognition of individuals.

The Dual Nature of Religion

Durkheim's (1915) assertion that religion as a "unified system of beliefs and practices relative to the sacred things…which unite in one single moral community" (p. 62) is echoed in Swenson's (1999) characterization of religion as both an "individual and social experience with the sacred" a hundred years later (p. 8). Psychologists interested in the impact of religion on attitudes, motivation, and behavior have recognized the dual nature of religion in satisfying both an individual's search for greater meaning and need for collective identity (Ysseldyk, Matheson, & Anisman, 2010). Religion is unique in this regard, as opposed to alternative collective identities or meaning systems (i.e., ethnic, political, or national), which routinely do not always fulfill both functions in an individual's life. The dual nature of religion has been described by researchers as incorporating both spirituality, or internal processes that arise from the search for the sacred, and religion, which encompasses both the search for the sacred but within the context of a social identity (Hood, Hill, & Spilka, 2009; Zinnbauer & Pargament, 2005). Spirituality encompasses an individual's personal beliefs, values, and behaviors with regard to the sacred (Hood et al., 2009; Pargament, Magyar-Russell, & Murray-Swank, 2005; Zinnbauer & Pargament, 2005). In addition, it is characterized by a personal transformation, through the search for an ultimate truth and meaning in life, in connection with a divine being or object (Hood et al., 2009; Pargament et al., 2005). An individual's search for the sacred can lead to a religious worldview that can help to provide the individual a coherent meaning

system through which they will seek to understand the world around them (Hood et al., 2009; Vail et al., 2010). A religious worldview covers the range of human experiences (e.g., death, sex, family, society), is easily accessible, and usually provides a set of beliefs and values that govern choices across the behavioral spectrum (Hood et al., 2009). In particular, a religious worldview affords the individual a base from which to restore meaning and a sense of control when events cause disturbance to an individual's life (Hood et al., 2009; Kay, Whitson, Gaucher, & Galinsky, 2009; Vail et al., 2010). One reason it has been argued that religion is a particular potent force is that religion, unlike secular meaning systems (e.g., political ideologies or cultural values), is able to deal with the problem of death and morality salience. When individuals are reminded of their own death, this heightens their belief in supernatural powers, such as a god (Vail et al., 2010). Terror management theorists argue the power of religion is two-fold, one it provides a group membership, and two, most religions provide an explanation for what occurs after death. By providing both, religion is particularly suited for moderating the effect of morality salience for individuals, as opposed to other forms of collective identity, and/ or meaning systems. In addition, Kay et al. (2009) have proposed that individuals in part sustain religious beliefs that support an ordered, nonrandom reality when personal control for events is threatened. In particular, Laurin, Kay, and Moscovitch (2008) found that when individuals were asked to visualize a situation that produced high anxiety that also implied low personal control, they were more likely to believe in a controlling God. They conclude that one of the functions of a belief in God is to help restore order and a sense of control in situations in which low personal control is coupled with high anxiety (Laurin et al., 2008). Kinnvall (2004) has also asserted that as globalization increases, which some individuals experience as increased uncertainty and insecurity, and religious identity provides a sense of security that may result in individuals being increasingly drawn to a religious identity. Religion does serve a dual purpose, first by providing a coherent and accessible worldview that helps an individual maintain sense of control over random events, and also by providing a potent personal and social identity. Lumsden and Wilson (1983) assert that religion is one method through which individuals enter a group and through that association individuals have greater access to resources and social support, which fosters both physical and psychological well-being. Shared religious faith fosters a sense of collective and group unity, and through shared activities, such as religious ritual, the group strengthens their religious faith and positive evaluation of the group (Hood et al., 2009). In an

interview study, Cadge and Davidman (2006), examining religious identities of Thai Buddhists and American Jews, found that while religious identity for both groups was greatly influenced by conditions of birth, choosing to engage in rituals either historically associated with their religious identity or as a matter of religious practice were methods of maintaining their religious identity. In addition, Japanese participants in the Gion religious festival in Kyoto gain a stronger sense of community and build long-lasting social support networks (Roemer, 2007). So, a religious collective identity enables members to access the benefits of increased social support and community resources through ritual and practice associated with their religious identity.

Research by Allport, Ross, and others (Allport & Ross, 1967; Baker & Gorshuch, 1982; Batson & Ventis, 1982; McFarland, 1989) has examined the distinction between extrinsic religious motivation, a drive to satisfy social or status needs, versus intrinsic religious motivation, faith for its own sake regardless of other benefits that may be derived. A commonly held belief about the distinction is the assumption that extrinsic religious motivation is nonnormative and of lesser value, whereas intrinsic religious motivation is normative and of higher value (Cohen, Hall, Koenig, & Meador, 2005). Researchers after Allport and Ross (1967) continue to argue that individuals who are motivated in part to belong to a religion to gain social support, identity, or status are not as advanced as members internally motivated to participate. More recently, however, Cohen et al. have argued that this distinction between extrinsic and intrinsic religious motivation imposes an American, Protestant, and individualistic set of norms on what is "good" versus "bad" religious motivation. Flere and Lavrič (2008) in a survey of American Protestants, Slovenian Catholics, Serbian Orthodox, and Bosnian Muslims found support that the distinction between extrinsic and intrinsic religious motivation appears to be more strongly linked to American Protestants' cultural beliefs than to those of any other religious group. The American Protestant tradition is characterized by individuals, either through conversion or free choice, entering their religious faith and is considered religion of ascent (Cohen et al., 2005; Morris, 1996, 1997). On the other hand, religious traditions such as Judaism, Roman Catholicism, and Hinduism are considered religions of descent, or religions into which members are born (Cohen et al., 2005; Morris, 1996, 1997). Cohen et al. argue that religions of descent tend to be orientated toward fulfilling both the spiritual and social identity needs of its members but are not any less valuable than religious faiths characterized by higher levels of

intrinsic religious motivation. To minimize the power of religion in fulfilling important needs at both the level of the collective self and personal self, some of the primary benefits individuals gain from being member of a large religious collective have been ignored.

Religion as Collective

Brewer (1991), Brewer and Caporael (1990), Brewer and Chen (2007), and Brewer and Gardner (1996) have long argued that an important aspect of the self is the connection between the individual and the collective. The *collective self*, in comparison to the *personal self*, exemplifies the individual's relationship to the group (Brewer & Gardner, 1996). The *collective self* represents an internalization of group norms and values by the individual, which act to guide cognition, behavior, and evaluation (Brewer & Gardner, 1996). Additionally, Caporael (1997) argues that human cognition has in large part developed in order to take advantage of group living and interaction (Cosmides & Tooby, 1992). It could also be argued that the potency and longevity of large religious groups is in large part due to the inherently social nature of these collectives.

Groups can be divided into a number of distinct categories, each acting in a different manner to shape an individual's sense of self, guide behavior, and cognition (Caporael, 1997). The size of the group is one determining factor in this process, with dyadic relationship differing from membership in large collectives (Brewer & Caporael, 1990; Caporael, 1997). The major religious traditions (e.g., Judaism, Hinduism, Buddhism, Christianity, Islam) could be considered macrodemes, or a *gathering of tribes*, while individual congregations or communities represent demes, or *tribes*. Function is another factor that distinguishes groups from one another. Demes' function is to create a shared reality or worldview, while marcodemes primarily work to standardize and coordinate language, which fosters a shared reality. The main reason why both a shared reality and language are essential to groups is that each increases the ability of the group to coordinate behavior in order to efficiently utilize the surrounding environment (Caporael, 1997). From this perspective, it is not just coincidence that three of the world's major religious traditions (i.e., Judaism, Islam, Christianity) developed in the Middle East, where both water and arable land are scarce; such scarcity requires the suppression of self-interested motives and group coordination to maximize these resources.

Caporael (1997) has argued that in order for members of relatively larger groups (i.e., demes and macrodemes) to enjoy the benefits of membership, such as access to mates, scarce resources, and security,

they must depend on a shared reality that is fostered by shared customs, rituals, and language. Shared reality is essential if large groups seek to efficiently coordinate behavior, and without it coordination in a non-face-to-face group would be difficult (Brewer & Caporael, 1990; Caporael, 1997). A religious worldview can unite individuals across other (e.g., racial and ethnic) dimensions, and such unity is fostered by shared rituals, artifacts, and language all of which lead to *obligated interdependence* between members (Caporael, 1997; Caporael & Brewer, 1995). *Obligated interdependence* occurs when members of a group depend on other members to perform certain tasks or provide resources that each member cannot perform or obtain efficiently as an individual (Caporael, 1997; Caporael & Brewer, 1995).

A shared reality develops and is perpetuated in part through shared origin stories (Caporael, 1997). Each of the major religious traditions has a creation/origin myth that is passed from one generation to the next as a way of establishing a shared reality. In particular, creation/origin myths create a shared narrative past that is connected to the sacred and convey a group's shared identity (Leeming & Leeming, 1994). For example, the three monotheistic religions (Judaism, Christianity, Islam) all share the same origin story, which can be traced in part to the Babylonian creation story of Enuma Elish (Heidel, 1953). Well-developed customs and rituals instill and reaffirm the worldview of a particular religion. One form practiced by a variety of faiths is ritualistic public prayer. In the Jewish tradition, the minyan is the requirement for a certain number of adult Jews to be present during certain ritualized forms of public prayer (Ariel, 1995). The act of public prayer in Judaism helps to reinforce what it means to be Jewish, not just in terms of beliefs, but also in reaffirming the participants' Jewish identity (Ariel, 1995; Cohen et al., 2005). The ritual of the Eucharist may serve a similar purpose in the Roman Catholic tradition, in which one's beliefs are reiterated publicly as both an expression of belief and identity. The Adhan occurs around the world five time every day to call Muslims to prayer, after which Muslims all recite the same prayer in Arabic. In addition to ritualistic public prayer, a number of the world religions have some form of a public water ritual, which is used to purify members or to signify membership. In Judaism, it is the Mikveh, in Islam it is the Ghusl, and for Hindus it is the ritual of bathing in the Ganges or other sacred rivers; all are means of purifying either the body or the soul. In Christianity, baptism is a water ritual through which new members are initiated into the faith and purified of "original sin." Whether it is through public prayer or religious ritual, individuals confirm their commitment to a particular collective. Public declaration of beliefs, for any religious

faith, probably thus serve the dual purpose of confirming of a shared reality while at the same time strengthening individuals' religious identities. More generally, it is understood that conformity to norms and rituals helps to depersonalize the individuals, so they view themselves less as unitary and more as prototypical group members, which leads to a stronger social identification with the group (Turner, Hogg, Oakes, Reicher, & Wetherall, 1987). Although rituals and customs work to reinforce a religious worldview, shared tools and artifacts help to promote the religious worldview and to coordinate behavior (Caporael, 1997). Nearly each world religion has common artifacts that are present in places of worship, such as the Aron Kodesh/Hekhál or the vessel for holding the Torah in a Jewish temple/synagogue, or the Cross in Christian churches. The use of prayer wheels or beads is another example of a tool, which reinforces the religious worldview while coordinating behaviors across individuals. Ritual slaughter of animals for consumption also uses a standardized method and tools. For example, in both Judaic and Islamic traditions, meat labeled either as kosher or halal means that the animal was slaughtered in a particular manner. Specifically, a sharp knife is used to sever the major arteries and veins in the neck of the animal in order to reduce the pain and suffering of the animal. As Caporael (1997) argues, artifacts and tools act to link individual behaviors to a particular worldview. In modern society, Jews and Muslims who seek to maintain religious dietary laws rely on unknown religious group members to slaughter and butcher animals in accordance with either halal or kosher laws. The reliance on unknown group members to perform this task is an example of distributed cognition and specialization within group, which is an element of successful group coordination.

Most interactions between group members occur at the level of a deme, or religious congregation. However, during religious festivals and holidays, congregations gather together (either in the same physical space or virtually) to form macrodemes. Participation in religious festivals and holidays provides members with increased access to resources and reaffirms the shared worldview and language, in addition to promoting *social affinity* between members (Bose, 2006; Caporael, 1997). Every year at least 2 million Muslims from around the world complete the pilgrimage to Mecca, or the Hajj. Pilgrims, or Hajji, benefit from an increased sense of unity with other Muslims, and it strengthens their common Muslim identity despite diverse national and ethnic backgrounds (Clingingsmith, Khwaja, & Kremer, 2009). The Hajj has historically also increased trade opportunities across the Muslim world and fostered the exchange of economic and scientific

ideas (Bose, 2006; Clingingsmith et al., 2009). In the Hindu tradition, the Diwali/Deepavali festival, or the festival of lights, is one of the most important and largest Hindu holidays, which is celebrated worldwide. Diwali is traditionally held in conjunction with markets and fairs, at which both goods are exchanged and marriages are arranged between the members of different congregations.

At religious festivals, such as the Hajj, macrodemes are able to perform one of their primary functions, which is the promotion of linguistic standardization and affinity. *Linguistic affinity* is essential in preserving a common religious worldview and identity (Caporael, 1997). Arabic is the common language of Muslims, and for Muslims, their holy book, the Quran, is not considered to be the true Quran unless it is in the original Arabic (Mohammed, 2005). Muslims aspire to be able to read or listen to the Quran in its original Arabic and strive to learn at least enough Arabic to do so (Mohammed, 2005). In addition, regardless of local language, the Adhan is traditionally recited in Arabic around the world. By unifying the language of the sacred text and ritualized prayer, Muslims have maintained at least some linguistic affinity for 1.3 billion people worldwide. Hebrew serves a similar purpose for Jews, in that it unites Jews across ethnic and national boundaries (Ben-Rafael, 1994). However, Hebrew, unlike Arabic, has not historically been as consistently used as spoken language between Jews. Hebrew, prior to the founding of Israel in 1948, was primarily restricted in some Jewish communities as a holy language for use in prayer and religious ceremonies and for literary purposes (Ben-Rafael, 1994). But with the founding of the state of Israel, Hebrew has evolved into a modern language that is increasingly used by Jews worldwide as a spoken language beyond its historically religious and literary uses (Ben-Rafael, 1994). This has worked to unify Jews both in Israel and around the world and to reinforce a shared religious identity among an ethnically/racially diverse group. Ulpans, or free institutes for learning Hebrew, were initiated soon after the founding of Israel in order to promote a unified national language. By strongly encouraging modern Hebrew language education of new Jewish immigrants to Israel, Israel has purposefully used language to reinforce a common Jewish worldview and identity (Ben-Rafael, 1994). It is a modern example of how language can be used by a large collective group to foster a group identity, increase the ability to share information, and ultimately promote group coordination and dependence.

Shared ritual, customs, festivals, and language all developed in order for groups to maintain a shared worldview. Religions across thousands of years have been particularly good at maintaining a coherent

worldview that unites members and fulfills social identity needs. One of the primary purposes of group living is to promote efficient use of the surrounding environment by suppressing individual self-interest in favor of group-level outcomes (Caporael, 1997). If each individual seeks to maximize outcomes and resource just for the self, the environment would suffer and eventually so would the individual. But by combining efforts across multiple individuals, the group is able to take better advantage of available resources. Caporael (1997) asserts that as a result of group living, a system of obligated interdependence develops, in which individuals depend on the group and other group members to provide necessary resources, reproductive mates, and other services not achievable at the individual level, such as security and protection.

Religions have developed over time to help provide these resources and services, in addition to institutionalizing obligated interdependence to other group members. In Islam, there is a Quran-mandated obligation to all Muslims. Muslims are obligated and responsible for the Ummah, or the world community of Muslims. The clearest demonstration of this obligation occurs during the Hajj, when Muslims from around the world mingle and depend on one another for the successful completion of the Hajj (Clingingsmith et al., 2009). The book of Vayikra (or Leviticus) of the Torah mandates that all Jews are obligated to all other Jews regardless of ethnic or racial background. A modern example of this obligation can be seen in the Israeli-assisted mass exodus of Ethiopian Jews to Israel in May 1991. In Operation Solomon, more than 14,000 Ethiopian Jews were transported to Israel over 36 hours. At least one plane carried more than 1,000 passengers. When the pilot of the plane (a Jew of European descent) was asked why he did this despite the plane's carrying capacity of 500, he was quoted as saying, "It's okay. I don't want to leave any of my people behind" (Rosenthal, 2003).

To summarize, the major religious traditions of the world function as large collectives, or macrodemes, composed of individual congregations, or demes. Religions are inherently social, and members derive multiple benefits from religion, which fulfill both spiritual and social needs. Based on the previous analysis, it can be argued that ignoring or demoting the social aspects of religion can reduce the richness and complexity of our understanding of religion and its power in members' lives. But in addition to religion satisfying spiritual and social needs, religion helps an individual to fulfill some basic individual needs.

Religion as Source of Collective Self

Brewer and colleagues have stressed the importance of understanding not only the unitary individual self but how the self is influenced

and defined by relationships to others and groups. The *personal self* is how the individual differs from others, is characterized by individual uniqueness and personal responsibility, and is motivated by self-interest. The *relational self* is motivated by interdependence with close others, who define the self, and dictates a responsiveness to others' needs and concerns. Finally, the *collective self* is a "depersonalized self" that is defined by membership in large collective groups and has a significant impact on an individual's self-concept, self-evaluation, and beliefs/values (Brewer & Chen, 2007; Brewer & Gardner, 1996; Turner et al., 1987). For a substantial portion of the world's population, religion can thus serve as a basis for the collective self. "I see being Jewish as… it's something I've been born into so it's who I am as a person" (Cadge & Davidman, 2006, p. 27). Being Jewish, Muslim, Catholic, Hindu, or Buddhist provides individuals with a sense of self and becomes a way to define the collective self. By connecting the self to a larger collective, an individual extends beyond the unitary self to the collective self (Brewer, 1991). Terror management theory proposes that one reason we may be motivated to extend the self to the collective is the belief the group will continue after our death and thus in some form we will continue (Vail et al., 2010). In addition, most religions provide an explanation for what happens after death, thus religion is a particularly potent collective self (Vail et al., 2010).

The level of identification with the group and the degree of self/collective overlap will dictate the degree to which an individual will view the world through the collective worldview. Roccas, Sagiv, Schwartz, Halevy, and Eidelson (2008) contend that an individual can identify with a group in multiple ways, including through importance, deference, commitment, and superiority. Religion can serve as an important aspect of the self, demand deference to norms and values, expect self-sacrifice from members, and promote its worldview as the true and right path (Wellman & Tokuno, 2004).

When individuals attach to or are born into a religion, the individual may extend the self to include the religion's collective identity, and shift from I to we, and thus the individual sees the group as an important aspect of the self. As the self extends to the collective, we will seek to conform our attitudes and behavior so that we are an *exemplar of the group* (Turner et al., 1987). Ensuring conformity to religious norms and behavior because of the moral implications is particularly important to members of a religious collective. Saroglou and colleagues (Saroglou & Dupuis, 2006; Saroglou & Hanique, 2006) have demonstrated that members with high investment in their religious tradition (e.g., Buddhism or Judaism) were more likely to value tradition and

conformity. In addition to valuing conformity to religious collective norms and values, individuals will internalize religious expectations for the individual's behavior and values. Emmons' (2005) research on the relationship between personal goal striving and religion/spirituality demonstrates that when individuals internalize religious goals, their importance to the self increases. Deference is a particularly important aspect of religious group identification since it is the amount of honor and respect one has for a group's norms, values, and leaders. Members of a religious collective demonstrate, through public prayer or ritual, deference for the values and beliefs associated with their religious faith. In addition, a number of the major religious tradition leaders are not only leaders for their own faith, but they are also viewed as world leaders; for example, the Archbishop of Canterbury, the Roman Catholic Pope, and the Dalai Lama. A rejection of criticism about the group is another aspect of deference. Wellman and Tokuno (2004) argue that one of the primary motivators of religious faith and identity is that religion claims to be true. They continue by saying that whether implicit religious truth, rituals, and practice are normal, thus real, or explicit religious truth, which is defended against other claims, neither can be disconfirmed. The inability of religious truth claims to be disconfirmed heightens members' faith and belief and willingness to defend against individuals or groups that oppose the group (Wellman & Tokuno, 2004).

Religious group members, as well as group members in general, make intergroup comparisons in order to confirm their belief/attitude that their religion is superior to others. If memberships in collectives is a source of information about the social self, the individuals will then seek to evaluate the social self, as they do aspects of the personal self. Intergroup comparison is one way in which individuals will assess their group and understand the collective self. Although intergroup comparison and beliefs that one's religious faith is superior to other faiths occurs in less extreme members, fundamentalists of any faith demonstrate the extremity of this behavior (Herriot, 2009). Religious fundamentalists act in an extreme manner not only to separate themselves from others but also to reinforce their own beliefs (Herriot, 2009). Herriot (2009) cites the example of the schism between Fundamentalist Christians and Pentecostal Christians, in which Fundamentalists claim superiority because Pentecostals are seen as driven by emotions and lacking intellectual rigor. Wellman and Tokuno (2004) cite the many examples of a religious community successfully resisting the larger political force, mostly in reaction to seeing their worldview or tradition as superior and worth preserving.

For any member of the religious collective, a certain level of commitment, or willingness to work to benefit the group even if this involves self-sacrifice, is necessary (Roccas et al., 2008). Tithing, or standardized contribution based on a percentage of personal income, a practice common for both Roman Catholics and Mormons, is a demonstration of commitment. When a religious group member is committed, they will shift their focus from self-interest to the welfare of the collective. This is demonstrated most clearly in the obligated interdependence that exists between Muslims and Jews as mandated by each groups' religious text. If an individual has a high level of identification with a religious collective, he/she will also benefit by satisfying a number of fundamental human needs.

Religion, as a large collective, can satisfy a number of fundamental individual needs and motivations. First, large collectives are able to provide what an individual cannot provide for him or herself, such as a coherent worldview, access to resources and mates, and security. Religion provides a sense of self and extends the self to the collective. Another need that large collectives fulfill is the need to belong, a primary human motivation (Baumeister & Leary, 1995). The need to belong is fulfilled when an individual is able to have ongoing interpersonal contact that is marked by *affective concern* (Baumeister & Leary, 1995). Brewer (1991) has argued that membership in a macrodeme/collective can help satisfy the need to belong, but if the collective is too large, an individual will be motivated to be more distinct. Although large religious affiliations, such as Judaism, Christianity, Islam, and Hindu, fulfill an individual's need to belong, these groups challenge an individual's need to be distinct. Given this within most of the world's major religions, there are smaller groups, which may differ, based on orthodoxy (e.g., Hasidic or Hassidim Jews versus Orthodox Jews), historical differences (e.g., Shia versus Sunni), or matters of practice (e.g., Roman Catholics versus Baptists). In addition, even smaller face-to-face groups, which constitute demes or congregations, have developed to provide the necessary continuing interpersonal contact and support required in order to fulfill the need to belong. So, while people identify with the larger religious groups, membership in different sects, denominations, or congregations is more likely to fulfill both distinctiveness and belongingness needs.

Social identity theory argues that another important individual process that groups serve is self-evaluation. Self-evaluation, in this context, depends on how well an individual is able to assimilate to the group prototype. Religion, unlike other large collectives, provides the individual with a dominant schema for social, political, and personal beliefs

and behaviors (McIntosh, 1995; Ozorak, 2005). Members will strive to assimilate their beliefs and behavior to this dominant schema and will evaluate themselves based on the degree of overlap. In-group identity verification is a form of self-verification that is indicative of the degree of self/group overlap and occurs when an individual is committed/invested in a collective (Gomez, Seyle, Huici, & Swann, 2009). Self-verification allows the individual to validate qualities of the unitary self, whereas in-group identity verification permits an individual to verify collective qualities, including ones they do not personally possess (Gomez et al., 2009). Gomez et al. argue that individuals seek to verify in-group characteristics they do not possess in part because by doing so they are able to remain part of the group, fulfilling belonging needs, but by verifying qualities they do not share with the group, they remain distinct (Brewer, 1991). Although religion does provide a complete worldview and prescribed behaviors for members, members will not always ascribe every religious belief or prescribed behavior nor will they all be important or central to the self. American Catholics, for example, tend to be more liberal on average regarding birth control, divorce, and other issues than the main Roman Catholic Church. So, while American Catholics benefit from belonging to the world's Catholic community and evaluate the self based on assimilation to the group and shared qualities, they also benefit from the distinction between themselves and the main church.

CONCLUSION

Religious collectives are well suited for fulfilling multiple functions and needs for religious group members. Religion provides a coherent worldview that provides a sense of control in a random and chaotic world (Kay et al., 2009) and an explanation for life after death (Vail et al., 2010). Religious collectives can serve all the functions of demes/macrodemes and provide a sense of identity to its members. Religious collectives and smaller congregations satisfy the need to belong, whereas an individual can maintain his/her uniqueness.

But the question remains: is religion a special case, or a more potent form, of identity in comparison to national or ethnic identity, or other forms of collective identity? Religion is unique in comparison to other collective identities in a number of ways, including the longevity of religious collectives, and in providing a meaning in an individual's life (and, maybe more importantly, his or her death) that exceeds most other meaning systems, including political ideologies, or other meaning systems. The major religious collectives of the world, Buddhism, Hinduism, Christianity, Judaism, and Islam, among others,

have existed and sustained group members for over a thousand years. Political ideologies over this same time frame have shifted and changed dramatically, sometimes within an individual's lifetime. But most importantly, it appears that religion provides meaning to the individual that helps the individual to maintain a sense of meaning and order in an otherwise chaotic system, in a way that political or other cultural meaning systems do not. Research on terror management theory (Vail et al., 2010) provides a most definitive answer to this question, in that religion or belief in a supernatural power does have a more powerful effect in reducing the fear of death than any other form of secular identity. Clearly, research on how religion impacts all levels of the self, personal, relational, and collective, is needed to fully answer this question.

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9

INTERGROUP RELATIONS IN THE 21ST CENTURY

In-Group Positivity and Out-Group Negativity Among Members of an Internet Hate Group

Karen Gonsalkorale and William von Hippel

I remember one day I woke up quite happy and then went to my local shopping mall. And there I saw a teenage nigger holding hand with a teenage blonde girl. I still remember the disgust and anger I felt rising within me. But things got worse. Just a few minutes later I saw a quite beautiful blonde woman about 25–30 years old walking together with a really ape-like nigger and a 3–4 year old mulatto kid walking between them. The horror, anger, and disgust I felt at that moment was incredible. It's seeing those kind of disgusting things that motivate me to fight for our cause.

(Anonymous, 1999b)

Life in the 'kingdom of the Jews' ain't it wunnerful!!!!! Our Race and Nation are flying down the highway of life at 120 mph and the treacherous Jew is in the driver's seat, while we (The white Race) haggle amongst ourselves over what the other PASSENGERS (The non-Jewish Races) are doing….. 'The hell with the Jew driver man, we'll beat-up on this clown next me, who's in the same sorry situation as we are…..!' Think, my white brothers and sisters. Our Race and Culture are in a life and death struggle with the Jews, and no one else but the Jews….. Anything, or anyone, who takes our

focus off THEM is knowingly or unknowingly being manipulated by our Jewish commissars. Wer kennt den Jude kennt den Teufel (Whoever knows the Jew knows the Devil).

(Anonymous, 1999c)

Sometimes I feel like one of the early Christians in the Roman Empire. Like us they had to sneak around, underground, preaching their message with the constant fear of being caught out and fed to the lions. I wonder if the people in this movement will be looked back on as the saviours of the white race in another 2,000 years, or just a bunch of paronoid outcasts.

(Anonymous, 1999a)

Although prejudice and stereotyping are ubiquitous in modern American society, most individuals hold strong beliefs in egalitarianism that prevent them from being openly hostile toward members of other groups. Indeed, theories of modern prejudice are based on the notion that prejudice must be rationalized in some way to avoid conflict with deeply held values of fairness (e.g., Dovidio & Gaertner, 1991; Kinder & Sears, 1981). Nevertheless, there are still a small percentage of individuals who cling to old-fashioned prejudices and believe that other races are inferior to whites. Until recently, individuals who hold such beliefs were becoming increasingly isolated, as their viewpoints were not socially sanctioned and to express them in public was to risk attack, rejection, and sometimes legal or other official penalties. With the advent of the Internet, however, cyber groups of every sort have proliferated, and members of hate groups now have a forum in which they can communicate freely with like-minded individuals.

The quotations that begin this chapter are from members of one such group, Stormfront, which is something of a World Wide Web clearinghouse for racist groups and white pride organizations. Stormfront was the first major racist group to take advantage of the web (Schafer, 2002), and it remains a very popular site, with over 150,000 members and over 200,000 page views every day. Almost half of Stormfront's visitors are from the United States, with the remainder predominantly from Germany, the United Kingdom, the Netherlands, Canada, and Belgium.

Internet groups such as Stormfront are effective in their provision of social support and a virtual community for people with extreme racist views, as they enable such individuals to circumvent the social awkwardness that might accompany attempts to identify whether another person is a white supremacist. Because social support for their beliefs causes prejudiced individuals to become even more prejudiced (Wittenbrink & Henley,

1996), Internet hate sites have the potential to exacerbate the social problems posed by racist organizations. The goal of this chapter is to describe the research that we have conducted with Marilynn Brewer on members of Stormfront. So little is known about the psychology underlying membership in such groups that the current research is largely exploratory, with the primary goal being assessment of the relative dominance of in-group enhancement versus out-group derogation among members of such groups.

In "normal" populations, in-group bias is primarily a function of in-group positivity rather than out-group negativity (Brewer, 1979, 1999, 2001). Certain circumstances can lead to derogation of out-groups, such as threat to the in-group (Judd & Park, 1988; Stephan & Stephan, 2000), but most groups engage in in-group favoritism far more than out-group derogation. Moreover, contrary to the idea that in-group positivity is reciprocally related to out-group negativity (e.g., Sumner, 1906), in-group favoritism tends to be independent of out-group derogation. At this point, it is unknown whether in-group positivity predominates and is independent of out-group negativity among members of hate groups. As can be seen in the opening quotations, members of such groups appear to feel very threatened by miscegenation with African Americans and perceived Jewish control of the media and government. If these threats are experienced chronically, it is possible that out-group negativity may be more common than in-group positivity among white supremacist organizations. Under conditions of chronic perceived threat, in-group positivity might also become coupled with out-group negativity, with increases in one associated with increases in the other.

To test these possibilities, the current research analyzed messages from Stormfront's online discussion forum. Stormfront is ideal for the current research purposes for several reasons. First, its members pride themselves on their intellectualism, and they prohibit any discussion of violence on the website. Second, each discussion thread is presented as a separate entity, which can be read or responded to independent of other discussion threads. Additionally, each thread is listed under the subject header that was used by the person who initiated the thread. Finally, next to each subject header is a pair of numbers indicating how many people have viewed the message and how many have responded to it. Thus, it is possible to quantify the interest level generated by each topic, at the level of both viewing and responding. We took advantage of these features to assess the types of messages that were read and responded to most frequently, and whether people were more likely to read and write in-group-enhancing messages or out-group-derogating messages. The relationships among in-group positivity, out-group negativity, and intergroup threat were examined via content analysis of the messages.

Here we report two separate studies. In Study 1, conducted in collaboration with Mark Polifroni, we posted messages on the discussion forum to examine how members of Stormfront would respond to different types of in-group positivity, out-group negativity, and intergroup threat. The content of the posted messages was manipulated such that it emphasized in-group positivity or one of two types of out-group negativity and intergroup threat (miscegenation vs. media control). In Study 2, instead of posting messages to the group, we simply downloaded and content analyzed a large number of messages from the discussion forum to gain a representative sample of the key concerns of Stormfront members.

STUDY 1

Method

Six messages were initially posted on the discussion forum. These messages represented three message types—miscegenation, white supremacy, or media control—and focused on blacks or Jews as the target out-group. Two messages discussed miscegenation (one focused on black–white miscegenation and one on Jewish–white miscegenation), two messages discussed white supremacy (one claimed superiority of whites over blacks and one claimed superiority of whites over Jews), and two messages discussed media control (one alleged Jewish control of the media and one alleged black control of the media). The messages were designed to be prototypic examples of the types of messages that are frequently sent by group members on these three topics, with the notable exception of the black control message, as blacks are portrayed by group members as mindless foot soldiers in the race war rather than clever manipulators. Preliminary examination of the number of views and replies for each message type suggested that the miscegenation messages appeared to generate considerable interest, whereas the white supremacy messages generated little interest. To ensure that this difference was not a function of the time the messages happened to be sent to the group, 5 months later we sent another black–white miscegenation message, Jewish–white miscegenation message, and white-over-black supremacy message to the group.

Once the message threads were no longer receiving any additional views or responses, frequency counts were obtained for the number of people who viewed the messages and the number who responded. All responses were then downloaded and coded for the presence or absence of in-group positivity, out-group negativity, racial slurs, threat, positive emotion, and negative emotion. Definitions and examples of the categories are presented in Table 9.1. Positivity toward two in-groups and negativity toward three out-groups were examined. The first and most obvious

Table 9.1 Definitions and Examples of Coded Categories

Category	Definition/Description	Example
In-group positivity	Any positive sentiment about whites as a whole, or racially aware whites specifically.	"[The white race is] a healthy, strong, vibrant, cutting-edge race"
Out-group negativity	Any negative sentiment about minorities (non-whites, homosexuals, etc.), race traitors, or liberals and communists.	"I have the serious displeasure of work [sic] with a stereotypical black guy"
Racial slur	Any disparaging term used to refer to a person's ethnic or racial group. This was used as another indicator of out-group negativity.	"Muds," "groids," "wigger" (short for "white nigger")
Threat	Any mention of group threats, including references to threat of invasion and threat of control by other races. Fear of individual out-group members was not included in this definition of group threat.	"We are suppressed [by American Jews], and in a foreign environment, increasingly hostile to our ways"
Positive emotion	Expression of positive emotion. Positive emotion could be directed at the group level or the individual level as long as the object of emotion was an in-group or an in-group member.	"White pride is what I say, white pride is what I think, white pride is what I know, white pride is what I'm thought, white pride means the world"
Negative emotion	Expression of negative emotion. Negative emotion could be directed at the group level or the individual level as long as the object of emotion was an out-group or an out-group member.	":mad:WARNING: B!tch commencing. I just found out that my wonderful Oma invited not only my cousin's fiance (a nigger), but also his extended family for Thanksgiving!"

in-group was whites. "Racially aware" whites was the second in-group as some white supremacists appear to restrict their in-group to those who support the white pride movement. Included in this category were followers of religions such as Christian Identity, which are often incorporated into the ideology of white supremacist movements (Dobratz, 2001; Etter, 1999, 2002; Tourish & Wohlforth, 2000). Although religion is not part of Stormfront's official ideology, one of the forums is devoted to religion. Minorities (blacks, Jews, homosexuals, etc.) were the first out-group target. The second out-group was "race traitors." This group includes whites who do not support the white pride movement and who may identify with popular black culture (a phenomenon that Yousman, 2003, has termed *blackophilia*). The third out-group was composed of liberals and communists. Although it is possible that many of these people might be minorities or race traitors, most of the time this information was unavailable. For this reason, liberals and communists were given a separate category. Out-group negativity and racial slurs—which have been shown to promote exclusion of out-groups (e.g., Leader, Mullen, & Rice, 2009)—were used as two separate indicators of the same general construct (i.e., out-group derogation). Positive and negative emotions were conceptualized as emotional responses to (members of) in-groups and out-groups, rather than as evidence of in-group favoritism and out-group derogation. Only the body of messages was coded, that is, statements or quotes appearing in the poster's signature were ignored as these typically did not change as a function of the message posted. Additionally, if a poster quoted someone who had mentioned any of the categories, and stated their agreement with the quote, then this message was also coded as the categories being present. However, the categories were coded as absent if the poster simply provided a quote without commenting on it (some posters routinely incorporated the material from earlier posts in their replies and some did not).

Results

Views and Replies   We noted the number of times each of the nine messages was viewed and responded to. Mean scores were then calculated for each of the three message types. The average number of views was highest for the miscegenation messages ($M = 118.50$, $SD = 51.55$). The white supremacy messages ($M = 67.33$, $SD = 27.59$) and the media control messages ($M = 62.50$, $SD = 9.19$) received similar numbers of views. Replies were highest for the miscegenation messages ($M = 9.75$, $SD = 6.18$), followed by the media control messages ($M = 4.50$, $SD = 4.95$) and the white supremacy messages ($M = .67$, $SD = 1.15$). Mean views and replies were also calculated according to whether the out-group target was blacks or Jews. Collapsed over topic, messages with black targets

received more views ($M = 97.00$, $SD = 55.38$) and replies ($M = 7.00$, $SD = 7.48$) than messages with Jewish targets ($M = 79.00$, $SD = 31.02$ views and $M = 3.75$, $SD = 3.59$ replies). These frequency counts suggest that the Stormfront members were most interested in the miscegenation topics and messages with black targets.

Coding   Seven of the nine threads received replies, yielding a total of 50 messages. One message was deleted as it was written by an out-group member who stated that he was proud of his mixed racial heritage. Two independent raters coded the remaining 49 messages for the presence or absence of in-group positivity, out-group negativity, threat, positive emotion, negative emotion, and racial slur. There was generally good agreement between the two raters, with kappa's coefficients for each category as follows: in-group positivity = .88, out-group negativity = .61, threat = .87, positive emotion = .66, negative emotion = .64, and racial slur = .96. Disagreements were resolved via discussion. Whenever a message contained in-group positivity or out-group negativity, the target was also coded. For in-group positivity, the targets were whites and "racially aware" whites. For out-group negativity, the targets were minorities, race traitors, and liberals and communists.

The data were analyzed at the message level, and if a particular individual contributed more than one message to a thread, only the first message from this person was included in the analyses. Moreover, among people who posted across multiple threads, only one message was analyzed. In such cases, a coin toss was used to determine which message to retain. Of the 39 message posters, 31 people posted 1 message, 6 people posted 2 messages, and 2 people posted 3 messages. A total of 39 messages were retained for analysis.

Table 9.2 presents the frequencies of the coded categories as a function of message type. Frequencies of in-group positivity and out-group negativity are presented separately for each target and as composite scores collapsed across in-group or out-group targets. It can be seen that responders mentioned out-group negativity, threats, and racial slurs more frequently than they indicated in-group positivity, positive emotions, and negative emotions. Expressions of in-group positivity were particularly infrequent.

Phi correlations between the coded categories for the 39 messages are presented in Table 9.3. None of the correlations between in-group positivity and out-group negativity were significant. Messages with references to threat tended to contain racial slurs and out-group negativity toward minorities, although the latter relationship was only marginally significant. Out-group negativity toward minorities was

Table 9.2 Frequencies of the Coded Categories as a Function of Message Type, Study 1

Coded Category	Frequency (%)			
	Miscegenation (N = 29)	White Pride (N = 2)	Media Control (N = 8)	Total (N = 39)
In-group positivity (whites)	3 (10.34)	0 (0)	1 (12.50)	4 (10.26)
In-group positivity (racially aware)	2 (5.13)	0 (0)	0 (0)	2 (5.13)
In-group positivity (composite)	5 (17.24)	0 (0)	1 (12.50)	6 (15.38)
Out-group negativity (minorities)	12 (41.3)	1 (50.00)	4 (50.00)	17 (43.59)
Out-group negativity (race traitors)	16 (55.17)	0 (0)	2 (25.00)	18 (46.15)
Out-group negativity (liberals)	0 (0)	0 (0)	2 (25.00)	2 (5.13)
Out-group negativity (composite)	28 (96.55)	1 (50.00)	8 (100.00)	37 (94.87)
Racial slur	13 (44.83)	1 (50.00)	4 (50.00)	18 (46.15)
Threat	14 (48.27)	1 (50.00)	6 (75.00)	21 (53.85)
Positive emotion	2 (6.90)	0 (0)	0 (.00)	2 (5.13)
Negative emotion	4 (13.79)	0 (0)	2 (25.00)	6 (15.38)

correlated with racial slurs. In-group positivity toward racially aware whites was significantly correlated with positive emotions.

Discussion

Despite the fact that their motto is "white pride world wide," Stormfront members appear to be focused more on out-group negativity than on in-group positivity. Stormfront members were more likely to read messages about miscegenation than white supremacy and more likely to reply to messages about miscegenation (and to a lesser degree media control) than messages about white supremacy. Irrespective of the topic

Table 9.3 Phi Correlations between the Coded Categories (N = 39), Study 1

	I+ (W)[a]	I+ (RA)[b]	I+ (c)[c]	O− (M)[d]	O− (RT)[e]	O− (L)[f]	O− (c)[g]	Thr[h]	Em+[i]	Em−[j]
I+ (RA)	.31†									
I+ (c)	.88**	.61**								
O− (M)	.04	.03	−.03							
O− (RT)	−.14	.25	−.05	−.09						
O− (L)	−.08	−.05	−.09	.26†	.02					
O− (c)	−.16	.15	−.10	.55**	.58**	.15				
Thr	.14	.22	.20	.30†	−.07	.22	.22			
Em+	−.08	.47**	.26	.03	.25	−.05	.15	.22		
Em−	−.14	−.10	−.16	.06	.18	.22	.11	.25	.22	
Slur	.03	−.22	−.05	.33*	.07	.02	.24	.34*	.02	.03

a I+ (W) = positivity toward whites
b I+ (RA) = positivity toward racially aware whites
c I+ (c) = composite indicator of in-group positivity (collapsed across target of in-group positivity)
d O− (M) = negativity toward minorities
e O− (RT) = negativity toward race traitors
f O− (L) = negativity toward liberals and communists
g O− (c) = composite indicator of out-group negativity (collapsed across target of out-group negativity)
h Thr = threat
i Em+ = positive emotion
j Em− = negative emotion
**p < .01. *p < .05. †p < .10

discussed in the messages we sent, Stormfront members also mentioned out-group negativity, threats, and racial slurs more often than in-group positivity in their replies. Out-group negativity occurred in almost all of the replies, and threats and racial slurs were evident in almost half. In sum, Stormfront members showed relatively little interest in reading about in-group positivity and the messages they wrote tended to be derogatory of out-groups.

The correlational analyses revealed no evidence of a reciprocal relationship between in-group positivity and out-group negativity. However, racial slurs were positively correlated with threat and out-group negativity toward minorities, indicating that racially derogatory terms were more likely to be used when issues surrounding threat and negativity toward minorities were being discussed. Thus, the data from this study suggest that group identity for Stormfront members is organized around out-group negativity, particularly toward minorities, and the threat posed by these groups for the in-group. The focus on out-group negativity observed in this study is in stark contrast to findings that intergroup bias is typically a function of in-group positivity rather than out-group negativity (e.g., Brewer, 1979, 1999, 2001).

Although this study had the advantage of control over the label and content of the messages sent to the group, our conclusions are limited by the small sample size. The sample size also precluded analysis of the data at the thread level, which would decrease the dependency between cases that exists in the current message-level analysis. To overcome these issues, a large sample of messages members of Stormfront sent to each other was downloaded from the discussion forum and coded in Study 2.

STUDY 2

The aims of Study 2 were to examine whether the predominance of out-group negativity found in Study 1 would replicate and whether a relationship between in-group positivity and out-group negativity would emerge in a larger more representative sample. The downloaded threads were coded as in-group related, out-group related, blended, or neither. Those threads that were relevant to the in-group, out-group, or both, were then content coded. The larger samples used in Study 2 have the advantage that they are more likely to be representative of the population, but they are also more likely to produce significant correlations that explain little variance. As outlined below, steps were taken to examine relationships in a manner that would be both representative and conservative.

Method

As it would be immensely time-consuming to examine the contents of Stormfront's entire discussion forum, a subsection was sampled. The home page of the forum contains several sections (e.g., "Activism"), each listing several superordinate topic areas (e.g., "Ideology and Philosophy") from which the discussion threads are accessed. Discussion threads for Study 2 were drawn from the 34 superordinate topics in the "General", "Open", and "Activism" sections. The other sections, including "Suggestions and Frequently Asked Questions" (typically dealing with technical issues in accessing the site) and "White Singles," were considered irrelevant to the study. Only threads from the first page of each superordinate topic were downloaded. There was no restriction on the length of the threads, and a total of 1,052 threads were downloaded.

Each thread was coded as being related to the in-group, out-group, neither, or both. In many cases, the title was an unambiguous indicator of which category subsumed the thread. However, the first message of the thread was occasionally inconsistent with the information conveyed by the title. For example, in the "Movie Reviews" section, many threads were named after the movie being reviewed. Although almost none of the movie names were related to the in-group or out-group, it often became apparent from the thread's first message that the movie was being reviewed because the writer thought it was relevant to the in-group or out-group. Thus, coding was based on (a) the thread's title and (b) the first page of the thread's first message. The aim of this two-pronged coding was to identify all threads that were relevant to the intergroup context.

Threads that were related to the in-group, out-group, or both were selected for further coding. In the current study, only the first message that had content that could be coded was examined. The rationale for examining the first message of each thread was that it likely reflects what Stormfront members think will be of interest to the group. This methodology also ensured relative independence of cases as only one message was coded from each thread.

Results

Thread Type   According to the title coding, 278 (26.43%) threads were in-group related, 106 (10.08%) were out-group related, 48 (4.56%) were blended (i.e., related to both the in-group and the out-group), and 620 (58.94%) were unrelated to the in-group or out-group. The first message codings revealed that 384 (36.50%) threads were in-group related, 110 (10.46%) were out-group related, 188 (17.87%) were blended, and

370 (35.17%) were unrelated to the intergroup context. Although there was moderate overlap between the title and message codings (Cramer's $V = .50$, $p < .001$), more messages were identified as relevant to the in-group, out-group, or both at the message level than at the title level. Based on a combined coding system, a total of 690 threads (65.59%) were related to the in-group, out-group, or both.

Views and Replies On average, threads ($N = 690$) that were related to the in-group, out-group, or both received more views ($M = 1451.59$, $SD = 9194.67$) and replies ($M = 36.26$, $SD = 146.99$) than threads ($N = 362$) that were not related to the in-group or out-group ($M = 970.17$, $SD = 9014.00$ views, $M = 25.16$, $SD = 106.83$ replies). However, variability in these values was substantial, as indicated by the very large standard deviations.

Preparation for Further Coding Several procedures were applied to the 690 threads to enable further coding. In seven threads where the first message was posted by an out-group member (e.g., a Jewish person), it was replaced with the next available message posted by a Stormfront member. 44 threads (6.38%) were then discarded because none of the messages contained codeable content. Examples of messages with no codeable content included those that consisted solely of a question, quote, or link to another website. Of the remaining 646 messages (representing 646 threads), 307 people had posted the first codeable message once and 107 people had posted the first codeable message more than once. As in Study 1, only one message from each poster was included in the sample. To determine which message to retain, people with multiple postings were grouped according to the number of messages they had posted. Whether the first or a subsequent message was retained was alternated within the groups. For example, among those who had posted twice, the first message of the first person was retained, the second message of the second person was retained, the first message of the third person was retained, and so on.

In total, this procedure resulted in 414 messages being coded for the presence or absence of the same categories as in Study 1. Where applicable, threats were coded as realistic or symbolic to better understand the nature of the threats that concern Stormfront members. These specific threats were of interest because they have been consistently linked to prejudice, both theoretically (e.g., Campbell, 1965; LeVine & Campbell, 1965; Rokeach, Smith, & Evans, 1960; Sherif, 1966; Stephan & Stephan, 2000) and empirically (e.g., Esses, Jackson, & Armstrong, 1998; Sherif et al., 1961; Struch & Schwartz, 1989).

Realistic threats refer to threats to the existence, political power, economic power, or physical well-being of the in-group. In the following example of realistic threat, a person discusses the relationship between her sister and her sister's non-white boyfriend:

> They already started sleeping together "unprotected" and my biggest fear is my sister might taint my race sooner or later.

Symbolic threats consist of threats by an out-group to in-group values, morals, beliefs, and norms. In the following example of symbolic threat, a person discusses the influence of black culture:

> …accepting the MTV, whites that act black, or use "street-urban dialect" hip hop, baggy pants, etc etc, it is rejecting ones own culture in trade for another…Therefore it is a way of "losing your whiteness."

Interrater Reliability Two raters independently coded 54 messages (~13% of the total set). The coders' ratings showed generally high agreement. Kappa's coefficients were as follows: in-group positivity = .76, out-group negativity = .92, threat = .95, positive emotion = .95, negative emotion = .70, and racial slur = 1.00. After disagreements were resolved via discussion, one of the raters coded the remaining messages for the presence or absence of the categories and, where applicable, the target of in-group positivity, out-group negativity, and threat.

Frequency Data There was a higher percentage of in-group positivity and a lower percentage of out-group negativity and racial slurs in this sample than in Study 1 (see Table 9.4). In-group positivity (collapsed across the two in-group targets) and out-group negativity (collapsed across the three out-group targets) were present in about one-third of the threads each, and there was no significant difference between the composite scores for in-group positivity and out-group negativity, $\chi^2(1) = 2.17$, $p = .14$. However, when the targets were race-based, there was a significant difference between in-group positivity and out-group negativity, such that out-group negativity toward minorities occurred more often than positivity toward whites, $\chi^2(1) = 12.47$, $p < .001$. In this study, race-based in-group positivity and out-group negativity accounted for the vast majority of cases of in-group positivity and out-group negativity (66.67 and 82.67%, respectively). Threats, positive emotions, and negative emotions each occurred at a rate of about one in five threads. Percentages of the coded categories were generally

Table 9.4 Frequencies of the Coded Categories in Total Sample and as a Function of Threads with Threat Present and Threat Absent, Study 2

	Frequency (%)		
Coded Category	**Threat Present** **(N = 86)**	**Threat Absent** **(N = 328)**	**Total** **(N = 414)**
In-group positivity (whites)	25 (29.07)	59 (17.99)	84 (20.29)
In-group positivity (racially aware)	11 (12.79)	31 (9.45)	42 (10.14)
In-group positivity (composite)	36 (41.86)	90 (27.44)	126 (30.43)
Out-group negativity (minorities)	52 (60.47)	72 (21.95)	124 (29.95)
Out-group negativity (race traitors)	2 (2.33)	11 (3.35)	13 (3.14)
Out-group negativity (liberals)	4 (4.65)	9 (2.74)	13 (3.14)
Out-group negativity (composite)	58 (67.44)	92 (29.05)	150 (36.23)
Racial slur	20 (23.26)	35 (10.67)	55 (13.29)
Threat (realistic)	–	–	77 (18.60)
Threat (symbolic)	–	–	12 (2.90)
Threat (composite)	–	–	89 (21.50)
Positive emotion	25 (29.07)	52 (15.85)	77 (18.60)
Negative emotion	30 (34.88)	43 (13.11)	73 (17.63)

greater in the threat-present sample than in the threat-absent sample; this difference was significant for positivity toward whites, $\chi^2(1) = 5.17$, $p < .05$, negativity toward minorities, $\chi^2(1) = 48.17$, $p < .001$, positive emotion, $\chi^2(1) = 7.86$, $p < .01$, negative emotion, $\chi^2(1) = 22.24$, $p < .001$, and racial slurs, $\chi^2(1) = 9.37$, $p < .01$.

Relationships between Coded Categories Phi correlations between the coded categories for the 414 threads are presented in Table 9.5. Although they were small in magnitude, several correlations were significant. As positivity toward whites increased, so did negativity toward minorities and racial slurs. Negativity toward minorities was also correlated with both types of threat, both types of emotion, and racial slur. In addition to positivity toward whites and negativity toward minorities, racial slur was significantly related to positivity toward racially aware whites, negativity toward liberals, negative emotion, and, consistent with Study 1,

Table 9.5 Phi Correlations between the Coded Categories in Total Sample (*N* = 414), Study 2

	I+ (W)[a]	I+ (RA)[b]	I+ (c)[c]	O− (M)[d]	O− (RT)[e]	O− (L)[f]	O− (c)[g]	Thr (R)[h]	Thr (S)[i]	Em+[j]	Em−[k]
I+ (RA)	−.11*										
I+ (c)	.78**	.52**									
O− (M)	.23**	−.06	.16**								
O− (RT)	.01	.08	.03	.00							
O− (L)	.01	−.01	.00	.00	−.03						
O− (c)	.23**	−.02	.18**	.91**	.25**	.25**					
Thr (R)	.08	.04	.10*	.31**	−.01	.02	.27**				
Thr (S)	.06	.04	.08	.14**	−.03	.13**	.15**	.03			
Em+	.22**	.21**	.30**	−.11*	−.01	−.01	−.12*	.11*	.14**		
Em−	.05	−.03	.03	.32**	.14**	.14**	.33**	.22**	.15**	−.04	
Slur	.17**	−.11*	.09	.41**	.01	.13**	.38**	.14**	.06	−.00	.30**

[a] I+ (W) = positivity toward whites
[b] I+ (RA) = positivity toward racially aware whites
[c] I+ (c) = composite indicator of in-group positivity (collapsed across target of in-group positivity)
[d] O− (M) = negativity toward minorities
[e] O− (RT) = negativity toward race traitors
[f] O− (L) = negativity toward liberals and communists
[g] O− (c) = composite indicator of out-group negativity (collapsed across target of out-group negativity)
[h] Thr (R) = realistic threat
[i] Thr (S) = symbolic threat
[j] Em+ = positive emotion
[k] Em− = negative emotion
**p < .01. *p < .05

realistic threat. Thus, while there was evidence of reciprocity between in-group positivity and out-group negativity in relation to race-based groups, several categories were also related to hostility toward minorities and racial slur. Negativity toward other out-groups (race traitors and liberals) was not significantly related to either form of in-group positivity.

To examine whether in-group positivity uniquely predicted out-group negativity and racial slurs, two logistic regression analyses were conducted (see Table 9.6). In each analysis, positivity toward whites, positivity toward racially aware whites, realistic threat, symbolic threat, positive emotion, and negative emotion were entered simultaneously as predictors. When the criterion was negativity toward minorities, all variables emerged as significant predictors, except for positivity toward racially aware whites. When the criterion was racial slurs, positivity toward whites and negative emotion were the only significant predictors. Thus, positivity toward whites made a unique contribution to predicting both negativity toward minorities and racial slurs.

Relationships as a Function of Threat   Relationships between the categories as a function of threat are shown in Table 9.7. Because the frequencies of symbolic threat were disproportionately low in comparison to realistic threat (see Table 9.4), the two threat types were combined in these analyses. There was a small significant correlation between positivity toward whites and negativity toward minorities both when threat was present and when it was absent. Positivity toward whites was correlated

Table 9.6 Logistic Regressions Predicting Negativity toward Minorities and Racial Slurs in Total Sample, Study 2

Predictor Variables	Criterion Variables					
	Negativity toward Minorities			Racial Slurs		
	B	*SE*	Wald	*B*	*SE*	Wald
In-group positivity (whites)	1.52***	.31	23.61	.97**	.35	7.82
In-group positivity (racially aware whites)	−.12	.46	.07	−1.79	1.05	2.88
Realistic threat	1.65***	.31	28.07	.51	.36	1.98
Symbolic threat	1.70*	.69	6.08	.35	.79	.20
Positive emotion	−1.60***	.41	15.20	−.13	.44	.09
Negative emotion	1.40***	.30	21.41	1.65***	.34	24.11

***$p < .001$. **$p < .01$. *$p < .05$, $N = 414$

Table 9.7 Phi Correlations between the Coded Categories in Threads with Threat Present (N = 86, Above the Diagonal) and Absent (N = 328, Below the Diagonal), Study 2

	I+ (W)[a]	I+ (RA)[b]	I+ (c)[c]	O− (M)[d]	O− (RT)[e]	O− (L)[f]	O− (c)[g]	Em+[h]	Em−[i]	Slur
I+ (W)	1	−.17	.77**	.26*	.24*	−.14	.28**	.10	.07	.19
I+ (RA)	−.10	1	.46**	−.19	.17	−.08	−.14	.21*	−.06	−.21
I+ (c)	.77**	.53**	1	.14	.19	−.18	.15	.20	.04	.05
O− (M)	.19**	−.05	.13*	1	−.03	.07	.95**	−.37**	.44**	.33**
O− (RT)	−.04	.06	.00	.02	1	−.03	.12	.24*	.05	.10
O− (L)	.07	.01	.07	−.04	−.03	1	.17	−.02	.19	.27*
O− (c)	.18**	−.01	.15**	.88**	.31**	.28**	1	−.36**	.41**	.31**
Em+	.25**	.20**	.32**	−.09	−.08	−.02	−.11*	1	.07	−.05
Em−	.01	−.03	−.01	.19**	.18**	.10	.23**	−.14**	1	.46**
Slur	.15**	−.08	.08	.41**	−.01	.06	.37**	−.01	.19**	1

[a] I+ (W) = positivity toward whites
[b] I+ (RA) = positivity toward racially aware whites
[c] I+ (c) = composite indicator of in-group positivity (collapsed across target of in-group positivity)
[d] O− (M) = negativity toward minorities
[e] O− (RT) = negativity toward race traitors
[f] O− (L) = negativity toward liberals and communists
[g] O− (c) = composite indicator of out-group negativity (collapsed across target of out-group negativity)
[h] Em+ = positive emotion
[i] Em− = negative emotion

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

with racial slur when threat was absent, but not when it was present. The significant correlation between positivity toward whites and negativity toward race traitors in the presence of threat should be interpreted in light of the low frequency of this type of out-group negativity (negativity toward race traitors was present in only two threads; see Table 9.4).

Logistic regression analyses predicting negativity toward minorities in the presence and absence of threat were then conducted. Positivity toward whites was a significant predictor of negativity toward minorities in the context of the other variables irrespective of whether threat was present or absent (see Table 9.8). Positivity toward whites also significantly predicted racial slur over and above the other variables when threat was absent (see Table 9.9). A parallel logistic regression was

Table 9.8 Logistic Regression Predicting Negativity toward Minorities in Threads with Threat Present and Absent, Study 2

	Threat Present (N = 86)			Threat Absent (N = 328)		
	B	**SE**	**Wald**	**B**	**SE**	**Wald**
In-group positivity (whites)	2.85*	1.12	6.49	1.32***	.35	14.54
In-group positivity (racially aware whites)	−.13	.87	.02	.02	.53	.00
Positive emotion	−4.45**	1.36	10.65	−.97*	.48	4.12
Negative emotion	4.78**	1.43	11.26	1.04**	.36	8.36

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

Table 9.9 Logistic Regression Predicting Racial Slur in Threads with Threat Absent, Study 2

	B	**SE**	**Wald**
In-group positivity (whites)	1.00*	.42	5.67
In-group positivity (racially aware whites)	−1.13	1.05	1.14
Positive emotion	−.08	.56	.02
Negative emotion	1.32**	.43	9.50

**$p < .01$. *$p < .05$. $N = 328$

not conducted for the threat-present sample as this analysis was not expected to yield significant results in light of the nonsignificant zero-order correlation between positivity toward whites and racial slur.

Discussion

The findings of Study 2 highlight the importance of intergroup relations for members of Stormfront. A majority of the downloaded threads (approximately 65%) discussed topics that were relevant to the in-group, out-group, or both. Such threads were more likely to be viewed and responded to than threads that were unrelated to the in-group or out-group. Thus, Stormfront members seem to be particularly interested in issues surrounding intergroup relations.

Although Study 2 suggested that intergroup relations are critically important for members of Stormfront, overall rates of in-group positivity and out-group negativity were not significantly different from each other. Nevertheless, mirroring Study 1, negativity toward minorities occurred more often than positivity toward whites. Both in-group positivity and out-group negativity were more likely to occur when threat was present than when it was absent. This finding is consistent with evidence that threat exacerbates intergroup bias (e.g., Esses et al., 1998; Sherif et al., 1961).

In contrast to research on mainstream groups, out-group negativity increased as in-group positivity increased. Positivity toward whites predicted negativity toward minorities even when controlling for other variables and irrespective of whether threat was present or absent. Positivity toward whites moreover significantly predicted racial slurs in the absence of threat. Reciprocal relationships involving other types of in-group positivity (toward racially aware whites) and out-group negativity (toward race traitors and liberals) were not observed. It appears that in-group favoritism is indeed linked to out-group derogation for Stormfront members, but only when the groups are race based.

GENERAL DISCUSSION

In this research, we content analyzed messages posted on Stormfront .org to examine the intergroup attitudes of white supremacists. Study 1 revealed a focus on out-group negativity, with Stormfront members expressing out-group negativity more often than in-group positivity in their written messages. Although no reciprocal relationships emerged between in-group positivity and out-group negativity, threats and out-group negativity were associated with racial slurs. In Study 2, instances of out-group negativity outnumbered in-group positivity when the

targets were race based, and in this larger sample, positivity toward whites predicted negativity toward minorities and racial slurs over and above other variables such as realistic and symbolic threats. The relationship between positivity toward whites and negativity toward minorities emerged irrespective of whether threat was present or absent.

The correlations between positivity toward whites and negativity toward minorities were small in size, suggesting that in-group positivity and out-group negativity are only weakly linked, even for members of hate groups. However, these findings were based on what Stormfront members chose to openly discuss, which does not necessarily reflect the entirety of their thoughts. It is possible that the true relationship is stronger than the current research suggests. People tend to display attitudes that conform to social norms (e.g., Crandall, Eshleman, & O'Brien, 2002; Wittenbrink & Henley, 1996), and it is possible that even here group norms constrained the types of messages posted on the discussion board. Rules posted on the Stormfront home page require that all messages conform to legal requirements. For example, members are asked not to incite violence against other groups; this may partly account for findings that white supremacist websites contain low levels of advocated violence (Douglas, McGarty, Bliuc, & Lala, 2005). These factors might have led to enhancement of the pro-white norm, independent of negativity toward out-groups. Additionally, failing to mention in-group positivity and out-group negativity does not indicate that the two were unassociated in people's minds. It is the case, however, that mentioning both categories is evidence that the writer was thinking about in-group positivity and out-group negativity together. Thus, the reciprocal relationships found in this study probably represent the lower limit of the effect size. Had it been possible to obtain direct ratings, a stronger relationship between in-group positivity and out-group negativity may have been found.

Previous researchers such as Brewer (2001) have theorized that in-group and out-group attitudes become negatively correlated under zero-sum conditions. When the welfare of the in-group can only be achieved at the expense of the out-group, in-group positivity can lead to out-group hostility. Intergroup threats posed by an out-group, either realistic or symbolic, can lead group members to perceive zero-sum conditions. In Study 2, threat was not required for reciprocity between in-group and out-group attitudes to occur; reciprocity between in-group positivity and out-group negativity emerged irrespective of whether threat was present or absent. This finding does not support the view that the relationship between in-group positivity and out-group negativity is pronounced under threat. It is possible, however, that

threat is chronically salient for Stormfront members and other white supremacists. That is, even when they do not explicitly mention threat, its presence might be implicit or understood and thus the obtained relationship between in-group positivity and out-group negativity might reflect appreciable levels of threat at all times. This possibility is supported by observations that white supremacist ideologies frequently refer to threats posed by minorities and immigrants (Ezekiel, 2002). A preoccupation with intergroup threats is also suggested by evidence from Study 1 that Stormfront members were more interested in messages related to threat than messages emphasizing white supremacy.

Overall, these exploratory studies indicate that out-group derogation is primary among white supremacists, and these negative attitudes toward out-group members are reciprocally linked to in-group favoritism. The question remains as to why intergroup bias among white supremacists differs from that of mainstream groups. As discussed, chronic perceived threat may play a role. Another possible answer comes from research on negational identities—identities defined by what one is not (e.g., not a Republican) rather than what one is (e.g., a Democrat; Zhong, Galinsky, & Unzueta, 2008a; Zhong, Phillips, Leonardelli, & Galinsky, 2008b). It may be the case that white supremacists are prone to negational identification, defining themselves partially in terms of who they are not (not black, Jewish, Asian, etc.). Negational identification leads to a distinct pattern of intergroup bias. In a minimal group study (Zhong et al., 2008b, study 2), participants who were given a negational identity ("you do not belong to the Type M group") displayed higher levels of out-group derogation but not in-group favoritism than participants given an affirmational identity ("you belong to the Type M group"). Affirmational identity resulted in in-group favoritism but not out-group derogation, whereas negational identity resulted in both in-group favoritism and out-group derogation. This suggests that positive distinctiveness was achieved via somewhat different routes, with the negational identity condition deviating from the typical finding that intergroup bias is primarily a function of in-group favoritism (e.g., Brewer, 1979, 1999, 2001).

Notably, in Zhong et al.'s (2008a, 2008b) research, the intergroup context was devoid of competition, threat, or other factors associated with zero-sum conditions; out-group derogation resulted from negational categorization alone. Out-group derogation may be "a natural consequence" of negational identification because negational identities focus on how the self is dissimilar to an out-group (i.e., contrast from the out-group; Zhong et al., 2008b, p. 798). For affirmational identities, the focus is on how the self is similar to other in-group members

(i.e., assimilation with the in-group; Zhong et al., 2008b), thus reducing the relevance of out-group derogation as a source of positive distinctiveness. In addition to changing people's frame of reference from the in-group to the out-group, negational identification may lead to redefinition of category boundaries. Zhong et al. (2008a) manipulated the salience of negational identity by asking Asian and Latino participants to write about either their experiences as a non-white person or as a member of their racial in-group. When negational identity was made salient, participants were more likely to report that they would vote for Barack Obama (a nonwhite candidate) instead of Hilary Clinton (a white candidate) if given these choices in the Democratic primary. Although not directly tested, it is possible that people previously considered out-group members (blacks) were recategorized as in-group members (nonwhites) when negational identity was made salient (Zhong et al., 2008a). These studies illustrate how negational identification can have important consequences for intergroup attitudes and behavior. Whether white supremacists' tendency to derogate minorities results from negational identification ("I am not a racial minority") remains a question for future research.

Another avenue for future research is to identify the antecedents of negational identities. One possibility is that negational identities are the result of a motivation to escape low status or a strategy for bolstering self-esteem (Fein & Spencer, 1997). That is, if people are not in a position to celebrate who or what they are (e.g., poor, uncultured, unskilled whites), then they might be more likely to resort to celebrating what they are not (e.g., black). This might explain why negational identities may be more closely tied to out-group derogation than in-group favoritism. However, it is not clear whether membership in racist groups is associated with low socioeconomic status. Although Ezekiel (2002) reported that many of the neo-Nazi activists he interviewed came from poor homes, other research (Green, Strolovitch, & Wong, 1998) has found no relationship between hate-crime incidents and neighborhood economic status. A second possibility is that negational identification is motivated by the need for distinctiveness; this idea is supported by evidence that negational identities are more accessible when the need for distinctiveness is made salient among nonracist samples (Zhong et al., 2008b). Future research could examine whether white supremacists have a heightened need for distinctiveness and whether this is associated with a greater propensity to engage in negational identification.

It is also worth considering whether different groups, or different members within a given group, vary in the extent to which they perceive an affirmational identity as implying contrast from an out-group.

That is, when people do engage in affirmational identification ("I am white"), to what extent does their definition of this identity incorporate contrast from an out-group? Research on white racial identity indicates that whites are more likely to define themselves in terms of their race if they had a high level of exposure to non-whites while growing up (Knowles & Peng, 2005). This implies that identification with the white in-group depends, at least to some extent, on contrast from racial minorities. For white supremacists, out-groups may be so salient that their in-group is partly defined by out-groups; not being black, Jewish, or Asian may be considered a core part of what it means to be white. Thus, the identity of white supremacists may be fundamentally linked to the identity of minority groups. This observation of interdependence between the identities of white supremacists and their out-groups has been made by Leets (2001, p. 290): "white supremacists' racial, religious and sexual orientations represent a classic dichotomization of others as 'not us.'"

Whites who are not white supremacists may be less likely to perceive a dichotomy between their racial in-group and out-groups. When people do perceive an out-group as defining their in-group, they may be more likely to exhibit out-group negativity and show interdependence between in-group and out-group attitudes. In cases where groups are reciprocally defining, it should be very difficult for individuals who identify with their group to achieve positive distinctiveness without derogating the out-group. This idea can be tested in future research by examining groups that define "us" as not being "them." For example, the identity of some atheists (who are identified as such) may rest heavily on the fact that they are not people who subscribe to religious beliefs. In contrast, the identity of agnostics may not necessarily depend on comparisons with religious people. This difference implies that people who identify themselves as atheists will display reciprocally negative attitudes toward people who are high in religiosity, whereas the intergroup attitudes of agnostic people will not exhibit this relationship. Thus, although evidence of reciprocity in the current research was based on an extreme group, more mainstream groups that have reciprocally defining features may also show a negative relationship between in-group and out-group attitudes.

It is also worth noting that relationships between in-group positivity and out-group negativity will most certainly be determined by multiple causes. Despite the mixed findings of the current research regarding the role of intergroup threat, this factor is likely to be an important determinant of intergroup attitudes. As hypothesized by some researchers (e.g., Brewer, 2001), intergroup conflict might exert its influence by creating perceptions of zero-sum access to resources. However, intergroup conflict

might also cause groups to define themselves in a reciprocal manner. For example, Kelman (1999) argued that the Israeli–Palestinian conflict has been characterized by negative interdependence between the two national identities. According to this account, the two sides have not only defined access to territory as a zero-sum conflict, but also their national identities. That is, "each group's success in identity building depends on the other's failure in that task" (p. 589), and thus each side has denied the legitimacy of the other's national identity. For example, Palestinians have argued that Judaism is a religion and is therefore not a true basis for a nation state, while Israelis have contended that Palestinian nationalism is an artificial creation without historical foundations. Kelman's analysis suggests that the in-group positivity and out-group hostility evident in Israeli–Palestinian relations may have arisen from negative interdependence in relation to scarce resources and group identities. Future research could examine the possibility that intergroup conflict leads in-groups to define themselves as a function of the out-group or increases the likelihood that people will engage in negational identification.

The self-proclaimed goal of many white supremacist organizations is to promote pride in the white race. Their leaders portray the white pride movement as akin to other social movements that encourage attachment to one's in-group. To the contrary, the current research suggests that in-group bias for white supremacists is driven by out-group negativity. Out-group hate, not in-group love, appears to be the primary motive among these individuals. Perhaps it is these strong feelings of out-group negativity that promote the intergroup conflict and violence that emerges among the more extreme members of such groups.

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10

DEVELOPING A THEORY OF GENDERED PREJUDICE

*An Evolutionary and Social Dominance Perspective**

Melissa M. McDonald, Carlos D. Navarrete, and Jim Sidanius

In this chapter, we argue that racism and ethnocentrism should be viewed as gendered phenomena. We provide a framework for interpreting current findings in the social psychological literature on prejudice, and for framing predictions about its gendered nature.

Our evolutionary approach to the gendered nature of prejudice is informed by social dominance theory (SDT; Sidanius & Pratto, 1999), which holds that all human societies are composed of group-based social hierarchies that are stratified on the basis of the following: (a) age: adults have greater social power than the young; (b) gender: men have greater social power than women; and (c) arbitrary sets, which are socially constructed groupings of individuals on the basis of salient characteristics, such as race, ethnicity, social class, and religion—some of which have greater social power than others. In this view, arbitrary-set distinctions can indeed be, literally, quite arbitrary; yet, it is the capacity of the human mind to mentally process arbitrary set groups as "real" entities with their own goals and interests that undergird the potential for racial and ethnic prejudice.

As a kind of "realistic group conflict" theory, at a broad level, SDT argues that prejudice is at least partly motivated by the desire among individuals of one arbitrary-set group to acquire more resources, status, and power for one's own group at the expense of other groups. However, it goes further than other group conflict perspectives in the claim that because "male" and "female" are fundamental categories across the natural world, arbitrary-set group prejudice is largely determined by the gender of both the target and agent of prejudice. More specifically, with the understanding of race and ethnic categories as types of arbitrary-set groups, it generates the counterintuitive prediction that minority men, not minority women, should be expected to be the primary targets of racial and ethnic prejudice and discrimination. This prediction stands in contrast to rather intuitive expectations derived from standard feminist and social identity theory, according to which minority women are thought to be subjected to a kind of "double jeopardy" because they share membership in two disadvantaged categories and should therefore be doubly disadvantaged as the targets of both gender and racial discrimination (Almquist, 1975; Beale, 1970).

SDT arrives at this provocative hypothesis along the following theoretical lines. As a psychological manifestation of the conflict of interests among groups, prejudice is, to a large extent, motivated by the goal of *social dominance*, defined as the desire for hierarchically structured and dominant/subordinate relationships among salient social groups. However, because men are predisposed to aggressive status striving with other men, this goal is primarily a characteristic of the psychology of men. As such, SDT argues that men are expected to be the primary agents of arbitrary-set discrimination. Additionally, because intrasexual competition is expected to be greater among men than among women, men are also more likely to be the primary *targets* of arbitrary-set discrimination. From this line of reasoning, the authors have put forth a so-called subordinate male target hypothesis (SMTH; see Sidanius & Pratto, 1999), which simply states that it is men, not women, who will serve as both the primary targets and agents of prejudice and discrimination against racial minorities (Sidanius & Veniegas, 2000).

Although a considerable amount of empirical evidence can be marshaled in support of the SMTH, we submit that an extension and a few important theoretical clarifications are in order. We first revisit the logic underlying the SMTH and clarify its conceptual footing within modern evolutionary theory—specifically with regard to the theories of parental investment and sexual selection (Bateman, 1948; Darwin, 1871; Trivers, 1972). In doing so, we reiterate the empirical claim that men should serve as both the primary agents and targets of arbitrary-set-based prejudice,

but make a few important qualifications to the nature of such prejudice. Contrary to the assumptions of many theorists and researchers within the field of intergroup relations (e.g., Alexander, 1979; Kurzban & Leary, 2001; Sumner, 1906), Brewer (1979) made the early and critical observation that in-group favoritism is distinct from out-group denigration or aggression. Brewer (2007) has reiterated: "Despite widespread belief that in-group positivity and out-group derogation are reciprocally related, empirical research demonstrates little consistent relationship between the two. Indeed, results from both laboratory experiments and field studies indicate that variations in in-group positivity and social identification do not systematically correlate with the degree of bias or negativity toward out-groups" (p. 730).

This distinction between intergroup prejudice as in-group favoritism versus out-group aggression is critical to our understanding of the intersection between gender and prejudice. Based on the assumptions of SDT, we see little theoretical reason to expect prejudice, defined as in-group favoritism, to be gendered, in that there should be few, if any, gender differences in the levels of in-group favoritism among men and women, nor with respect to the gender of the targets of in-group favoritism. In contrast, this gender orthogonality is not expected when intergroup prejudice is defined in terms of out-group aggression, dominance, or social predation. Within this domain of intergroup prejudice, men are expected to be both the primary agents and targets of intergroup predation and aggression. Furthermore, we make the qualification that power asymmetries need not exist between groups in order for negativity toward the males of other groups to be expressed, that is, the targeted group need not necessarily be subordinate, as the SMTH implies.

Finally, we provide a theoretical clarification for the claim that men, not women, will serve as the primary targets of intergroup prejudice and give an evolutionary account of how women may also be expected to be prejudiced toward out-group men. In doing so, we temper the claim that prejudice is largely a "male affair," and develop the notion that on evolutionary grounds, men and women both have cause to act as agents of prejudice toward out-group men, with the qualification that the underlying motivations for this prejudice are gender specific. We posit that whereas prejudice held by men may be driven by aggression against and dominance over men belonging to arbitrary-set groups other than one's own (out-groups), women's prejudice is more likely to be characterized by wariness or fearfulness of such men. These predictions are derived from the theories of parental investment and sexual selection, coupled with a narrative account of human evolutionary

history in which women were not the primary agents of intergroup aggression but were commonly its victims—particularly with respect to sexual assault. Although it may be the case that men exhibit greater levels of intergroup prejudice than women in most domains, women are certainly not immune from prejudiced motivations, attitudes, emotions, and behavior. We provide both the theoretical framework and empirical evidence for our claims in the following sections.

PARENTAL INVESTMENT THEORY AND SEXUAL SELECTION

From an evolutionary perspective, one could argue that many of the robust psychological differences between men and women can be explained in terms of the differential reproductive opportunities and risks by which male and female mammals are constrained. Because of the way mammalian reproductive systems are designed, females are obligated to invest much more heavily in offspring than are males—even before socialization of offspring occurs—in terms of time, energy, and resources associated with fertilization, gestation, parturition, and lactation.

In sharp contrast, males have no physiological obligations in offspring past successful fertilization. This stark asymmetry in obligate physiological investment between the sexes sets the stage for complementary asymmetries in behavioral strategies to cope with these realities. As the higher investor in the mating transactions necessary to produce offspring, females are more discriminating in their choice of a candidate from the lower investing sex. Females also do not experience reproductive benefits from engaging in extra matings between conception and weaning. This leads to a female mating strategy that can be described as one primarily concerned with selecting mates of high *quality* (as mating strategies that maximize quantity are of little benefit to females), so as to not waste their costly investment.

On the other hand, because males are not burdened with the same obligate costs in producing offspring, they are the less choosy sex. In contrast to the low reproductive benefits available to females pursuing multiple matings, males benefit more from a *quantity* mating strategy as their reproductive success rises as a function of the number of fertile mates with whom they copulate. These conflicting prerogatives of males and females create an incentive structure that rewards the lower investing sex for engaging in risky, aggressive, and often dangerous strategies for eliminating or neutralizing same-sex competitors in order to increase one's mating access to the higher investing sex.

Such strategies are thought to result from the evolutionary process of *sexual selection*—a form of natural selection that leads to the evolution of traits or strategies that have little to do with survival but more to do with increasing one's ability to attract or gain access to mates. Sexual selection can operate on traits or strategies that make one more successful in competition with others of the same sex (intrasexual selection), such as contesting for territory, food, status, mates, and other resources, or it can operate between the sexes (intersexual selection) where the preferences of one sex produces characteristics in the other sex that satiate that preference (e.g., nuptial gifts, peacock tails). With respect to violent conflict, intrasexual and intersexual selection may operate via a feedback loop to produce more violent, aggressive, and risky behaviors among males than among females. Males with attributes that provide them with an advantage in intrasexual competition may be more likely to be preferred as mates by females, who then pass the genes for those male attributes and their own preferences for them on to future generations. It is this process of sexual selection that results in the dimorphic phenotypes observed in many species, such that males tend to be larger, more heavily muscled, better armed (e.g., larger teeth and horns), and more prone to lethal aggression (Daly & Wilson, 1988).

When the insights from sexual selection theory are coupled with the logic of parental investment theory, several implications emerge that can be applied to the domain of intergroup conflict. Such implications are relevant to understanding the fundamental nature of intergroup prejudice and how gender plays a key role in its expression. As is the case with the gender asymmetry in reproductive benefits gained from engaging in violent, intrasexual conflict at the individual level, it has been argued that aggression at the group level could also yield the potential for immense gains in reproductive resources for males relative to females (Buss & Shackelford, 1997; Daly & Wilson, 1988; Tooby & Cosmides, 1988). Consider the example given by Tooby and Cosmides (1988) of a coalition of males who eliminate the males of a neighboring group and usurp their females. The males in the victorious group would experience a staggeringly steep increase in their fitness. Of course, males of other groups do not sit idly by while they are eliminated and are likely to violently resist, thereby exacting a substantial cost on the aggressors. However, even if the risk of failure among the aggressors is high and there are few survivors among male combatants, such risks are readily offset by the exponentially increasing benefits bestowed upon the victors because the reproductive rewards would be split among a smaller number of beneficiaries.

Our analysis suggests that the incentive structure of intergroup conflict is such that selection would have been particularly strong in shaping male-specific psychological traits that motivate aggression toward, and dominance over, other social groups. These psychological traits may take the form of emotions, attitudes, and cognitive biases whose ultimate function is to disadvantage or debilitate other groups relative to one's own, particularly when the out-group targets are male. However, the psychology of prejudice among females is not likely to reflect the same function as it does for men as the incentives for intergroup aggression among females are less rewarding in an evolutionary sense. Not unlike males, females have much to lose from aggressive intergroup conflict, but there is little to gain because of their lower ceiling on reproductive success that can be had by increasing the pool of available mates. As such, it is unlikely that selection would have favored a female-specific psychology for intergroup aggression and dominance.

Using parental investment and sexual selection theory, the preceding arguments provide a theoretical basis for the expectation that males should be the primary agents of violent intergroup conflict and that this agency is motivated by a desire to dominate out-groups in the service of obtaining valuable reproductive resources. However, a few issues remain to be clarified. First, it is necessary to address whether the out-group target must necessarily be "subordinate" as was originally specified by the SMTH. Using the logic of sexual selection theory, we can derive no principles as to why intergroup aggression should necessarily be restricted toward males of subordinate groups. Males of any group, regardless of the group's dominant or subordinate status, should be motivated to dominate other groups, or at the very least should aggressively resist being dominated, as the potential for complete failure in reproductive fitness is so great. Despite this, dominant groups may be more likely to target subordinate out-groups when power asymmetries are large because it is less costly to do so, given the strategic advantage that power imbalances bestow on dominant groups (Tooby & Cosmides, 1988).

A second issue yet to be clarified within the context of intergroup conflict is why males, as the primary agents of intergroup aggression, do not target out-group females as well as out-group males. The logic of sexual selection suggests that males do not view females as competitors, but rather as contested resources. This is true for both in-group and out-group females, as it is often the case that females from the out-group are incorporated into the victorious group after intergroup conflict (Thornhill & Palmer, 2000; Wrangham & Peterson, 1996). Males are more likely to attempt to control female's ability to acquire

resources, thereby forcing economic dependence, than to treat them as competitors. In the same vein, male's ability to monopolize the available resources increases their value and attractiveness as a mate. This suggests that it is not generally the purview of males to harm or debilitate females as they are an invaluable resource as mates and caretakers of offspring. In contrast, it is the intent of males to harm and debilitate other males, as they represent an obstacle that impedes their ability to acquire mating opportunities. As such, gender bias functions as a paternalistic brand of discrimination rooted in a sense of male proprietorship over females, rather than their elimination or debilitation as competitors. This is not intended to suggest that women are not discriminated against on the basis of their membership in a particular arbitrary-set, but rather that this discrimination is more likely to be indirect, occurring as a result of their association with out-group men as daughters, sisters, mothers, and so forth (Sidanius & Pratto, 1999).

A third and final clarification of the original SMTH concerns the role of females as agents of prejudice. We have argued thus far that males are expected to be both the primary agents and targets of intergroup violence. However, it is certainly not the case that females are free from prejudiced motivations. As alluded to in the previous paragraph, among humans and chimpanzees, sexual and physical abuse of females is not an uncommon occurrence during intergroup conflict. Although females are typically spared from the most lethal forms of violence as combatants or victims, they may suffer threats to their reproductive choice through coercive and violent sexual attacks (Thornhill & Palmer, 2000; Wrangham & Peterson, 1996). The violent conflicts in Bosnia, Rwanda, and Darfur over the last two decades are relatively recent instances that highlight the brutality females experience during such conflicts. It is, therefore, a conflict of interest among males and females that characterizes gender relations in intergroup contexts. As a function of females' high investment in offspring, reproductive choice is of crucial importance to females. In light of this, selection may have favored females who were particularly vigilant in the protection of their reproductive choice. Because intergroup conflict seems to have been much more common in prehistoric societies than in historic societies (Bamforth, 1994; Ember, Daly, & Wilson, 1978; Keeley, 1996; Wrangham & Peterson, 1996), women most likely faced considerably greater threat of sexual assault from out-group than from in-group males, if one corrects for the amount of time spent in the proximity of both categories of males. To the extent that out-group males pose a greater threat to female choice than in-group males, everything else being equal, a number of psychological mechanisms may have been

selected for that generate prejudice toward out-group males. The expression of this bias, however, is not likely to take the form of aggression and domination. The sexual dimorphic differences in size and strength between males and females would make this a very costly enterprise. Rather, the mechanism should promote avoidance of out-group members through fearful emotions along with attitudes and beliefs that characterize out-groups as threatening.

It is, therefore, not the case that men should be the only agents of intergroup prejudice nor is it predicted that men will *always* exhibit more prejudice than women. Instead, we posit that both men and women are agents of prejudice, but that the character of this prejudice and its underlying motivations differ among men and women as a function of the different adaptive challenges each has faced over evolutionary time in the context of intergroup violence. Women are more motivated by threats to their reproductive choice, whereas men are more motivated to out-compete sexual rivals. In accordance with these motives, women's out-group prejudice will be expressed via an avoidance strategy characterized by fear, whereas men's prejudice will be expressed via an approach-oriented strategies characterized by aggression, violence, dominance, and social predation. The precise level of prejudice exhibited by men and women should, therefore, be dependent on characteristics of the situation and types of prejudice motivation that are subsequently aroused.

Guided by the theories of sexual selection and parental investment, we have clarified and extended a number of predictions put forth by the SMTH as originally proposed by SDT (see Sidanius & Pratto, 1999). In the process, we have altered the nature of the original hypothesis such that it may no longer be adequately characterized by the name, "*subordinate* male target hypothesis." In its stead, we propose a theory of gendered prejudice, which asserts three primary predictions: (1) out-group men serve as the primary targets of intergroup prejudice, especially when this prejudice is expressed as out-group denigration and aggression; (2) although both men and women may serve as agents of intergroup prejudice, as expressed by in-group bias and in-group favoritism, men will tend to be the primary agents of prejudice, as expressed by out-group denigration, intergroup domination, and social predation; and (3) men and women's out-group prejudice is driven by different underlying motivations—out-group prejudice among women is significantly motivated by fearful avoidance, whereas out-group prejudice among men is more likely to be motivated by a combination of aggression and social dominance. We will now turn to empirical work that supports these predictions.

EMPIRICAL SUPPORT

Intrasexual Competition and Risky Behavior

Arguing from the logic of parental investment theory and sexual selection, we have asserted that men have greater incentive to engage in high-risk behaviors in order to compete for access to women who represent a both highly valued and scarce resource. As such, we should find evidence that intrasexual competition is greater among men than women and that men engage in riskier, competitive tactics than women. We find evidence of this in the literature examining both human and primate intergroup aggression. For example, among chimpanzees, it is primarily the males, not females, that form alliances (generally along kinship lines) and then engage in intergroup hostility (Goodall, 1986).

Evidence of substantially higher levels of intrasexual competition and aggression among men can be found all around us, from self-report measures of aggression to aggressive behavior in laboratory studies, intensely competitive forms of play among male children, individual homicides, gang wars, and full-scale international conflagrations (e.g., Archer, 2004; Bettencourt & Miller, 1996; Eagly & Steffen, 1986; Keegan, 1993; Terrell, Hill, & Nagoshi, 2008; Wrangham & Peterson, 1996). Although there is certainly intense and sometimes violent intrasexual competition among human women often expressed in the form of reputational aggression (see especially Prinstein & Cillessen, 2003; see also Archer, 2004; Bjorkqvist, Lagerspetz, & Kaukiainen, 1992; Campbell, 1999), competition among men is often much more physically violent and lethal than that found among women.

Evidence of the substantially higher levels of physical competitiveness and aggression among men can also be seen in homicide data. For example, in the United States during the interval between 1976 and 2004, men committed 93.3% of felony murders (see Bureau of Justice Statistics). Furthermore, as reported by Daly and Wilson (1988), when one restricts attention to intrasexual homicide (i.e., same-sex homicide) across a broad array of societies,* roughly 96% of such mayhem is male violence targeted against other males.

The disproportionate rate of intrasexual male violence is not just restricted to individual acts of violence but can also be found in various forms of collective conflict such as intertribal, interclan, intergang, and interstate warfare. The fact that intergroup warfare tends to be

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* The societies included in this statistic are Australia, Botswana, Brazil, Canada, Denmark, England, Germany, Iceland, India, Kenya, Mexico, Nigeria, the United States, Scotland, Uganda, Wales, and Zaire.

dominated by men has been observed for some time. For example, the well-known war historian Keegan (1993) remarks that "warfare is, nevertheless, the one human activity from which women, with the most insignificant exceptions, have always and everywhere stood apart.... Women, however, do not fight. They rarely fight among themselves and they never, in any military sense, fight men. If warfare is as old as history and as universal as mankind, we must now enter the supremely important limitation that it is an entirely masculine activity" (p. 76).

When risky and competitive behavior is examined in the laboratory, the same gender differences arise again and again. For example, Niederle and Vesterlund (2007) examined whether men and women of the same abilities differed in their preference to participate in a competitive task. Participants completed a simple math task with a noncompetitive incentive structure and then completed the same task with a tournament style, competitive incentive structure. For a third task, participants were permitted to choose an incentive structure for the task. Of the male participants, 73% selected the competitive task, whereas only 35% of the female participants made this choice. The authors found that this gender difference was not explained by differences in performance but instead was partially driven by men's greater preference for performing competitively. Along similar lines, Kleinjans (2009) reported that women evince a greater distaste for competition than men and that this distaste predicts women's selection into less competitive occupations.

This research demonstrates rather conclusively that men tend to not only exhibit more competitive and risky behavior than do women, but actually seek out opportunities to engage competitively with others. Unfortunately, this research does not address intrasexual competition within an intergroup context and also does little to demonstrate the underlying motivations for this behavior. To address the first issue regarding intergroup context, Van Vugt, De Cremer, and Janssen (2007) demonstrated, across three studies, that in public goods tasks, men contributed more to their in-group when they believed they were competing against an out-group, whereas women tended to contribute equally regardless of whether or not they thought they were competing against an out-group. These results suggest that cues of intergroup competition are particularly salient to men relative to women. To address the issue regarding the underlying motivations of intrasexual competition, a recent study has provided support for the notion that risky and competitive behavior among men is in the service of securing mating opportunities. Baker and Maner (2009) had participants complete a behavioral measure of riskiness under a variety of conditions associated with mating opportunities. Participants first viewed a

video of an opposite-sex partner (confederate) who disclosed that they were either single or engaged to be married. Participants then completed the risk task either privately or under the assumption that their performance would be viewed by their partner. The results indicated that men, but not women, exhibited riskier behavior when they believed that a single opposite-sex partner would view their performance. These results suggest men's risky and competitive behavior is at least partly driven by the desire to impress the opposite sex when a mating opportunity is potentially available.

The research described above suggests that intrasexual competition is greater among men relative to women. This greater competition comes in the form of real-world aggressive and often lethal violence, and also in more controlled laboratory studies demonstrating a greater propensity for competitive and risky behavior among men relative to women. Finally, there is evidence that the risky and competitive behavior of men is in the service of promoting the acquisition of mating opportunities. Such evidence is in accord with the arguments we derived from parental investment theory and sexual selection, namely that men have far more to gain, relative to women, by engaging in competitive and risky status-striving strategies. It has been further argued that these same processes that drive greater intrasexual competition among men within a group can be extrapolated to account for the violent and aggressive intergroup conflict observed among men. That is, the potential benefits associated with intergroup competition are far greater for men than for women, thereby making it more likely that men will serve as the primary targets and agents of intergroup aggression. We now review evidence specific to intergroup relations, looking first at evidence that men are the primary targets of arbitrary-set discrimination, then turning to evidence that men are the primary agents of intergroup prejudice (although certainly not the sole agents), and finally examining the gender-specific psychologies that motivate intergroup prejudice among men and women.

Targets of Intergroup Prejudice

Evidence that out-group men rather than out-group women, constitute the primary targets for arbitrary-set animus and antagonism can be found across an array of everyday domains of life, including the labor market, criminal justice system, housing and retail markets, and educational sector. However, the clearest and least ambiguous evidence in support of this prediction can be observed in hate crime statistics. According to the U.S. Department of Justice, there were some 210,000 hate crimes committed in the United States between July 2000 and

December 2003 in which the violent victimization rate was 50% higher for men than for women* (see Harlow, 2005).

One can also find evidence that men are the primary targets of intergroup prejudice in the more mundane instances of everyday discrimination. Perhaps the clearest of such evidence is found in the labor market. For example, in a study of minority disadvantage in Great Britain in 1974, Smith (1976) found that white women earned a weekly wage which that was approximately 3% higher than that earned by black women. However, this relative advantage of whites over blacks was substantially larger among men, in which it was found that white men earned a weekly wage that was 10% higher than that of black men. American census data tend to show the same gender-moderated racial differences in earnings. For example, in 1994, white women showed average yearly earnings that were approximately 7% higher than black women whereas white men had average yearly earnings that were 44% higher than that of black men (see Sidanius & Pratto, 1999).

The same pattern of gender-moderated discrimination is found even after controlling for educational achievement. For example, Farley and Allen (1987) conducted an illuminating series of analyses on additional hourly wages earned as a function of one additional year of education among white and black men and women. Although all gender-by-ethnicity groups benefited economically by increased educational investment, these economic returns on educational investment were not equally distributed. White men received a higher return rate on one additional year of college education than did black men in both 1960 ($0.78 vs. $0.58 per hour, respectively) and 1980 ($0.96 vs. $0.63 per hour). However, the pattern was very different for white and black women, where the *exact opposite* trend held. In 1960, white women received an additional $0.59 per hour, while black women received an additional $0.62 per hour in wages. In 1980, the same pattern held, but with black women earning even more per hour than white women ($0.79 vs. $0.64). In other words, while the basic data can provide some basis for a claim of arbitrary-set (i.e., racial) discrimination against black men, there is no evidence in these data to support a case of arbitrary-set discrimination against black women.

The same type of gender-moderated income asymmetry was also found in Bowen and Bok's (1998) longitudinal study of the 1995 incomes of black and white students from the entering class of 1976 to America's elite universities and colleges. Their analyses showed that although white

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* Annual rate of violent victimizations was 0.9 per 1,000 persons for men and 0.6 per 1,000 persons for women.

women graduates earned slightly more than black women graduates (i.e., $64,100 vs. $60,900 per year respectively), this "racial" gap between white and black women essentially disappeared once a very comprehensive set of controls* were introduced ($64,000 vs. $63,700 per year respectively). However, the racial differences between men were not so easily accounted for by controls. Mean earned income in 1995 for white men was 29.1% higher than that of black men. Although these differences were attenuated after comprehensive controls were introduced, there was still a 9% earnings advantage in favor of white men.

This gender-moderated racial victimization can also be found by use of controlled field employment audits.† For example, Sidanius and Pratto (1999) performed a small meta-analysis of some 19 employment audits, contrasting the employment outcomes for varying dominant and subordinate groups across five nations (i.e., Britain, Canada, Germany, the Netherlands and the United States). While all of these studies showed significant levels of employment discrimination against members of subordinate ethnic groups, controlling for a number of factors, the results showed that the discrimination against subordinate men was substantially higher than that against subordinate women (see Sidanius & Pratto, 1999, pp. 162–172). These effects persist into the 21st century and with respect to other minority groups as well. For example, according to the U.S. Census, the 2006 earnings of white women from full-time employment were approximately 16% greater than that of black women and 42% greater than that of Latino women. In contrast, white men earned 37% more than black men and 73% more than Latino men (U.S. Census, Current Population Survey, 2007; see Figure 10.1).

Within the retail sector, Ayres and colleagues have conducted a number of field experiments exploring the degree to which arbitrary sets are discriminated against within the automobile market (Ayres, 1991, 1995; Ayres & Siegelman, 1995). In a series of audit studies, teams of black and white, men and women auditors were sent to a number of randomly selected car dealerships to negotiate for new cars. Holding all other economically relevant factors constant (e.g., income, credit worthiness, employment history), it was shown that although black women were required to pay somewhat more than equivalently qualified white

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* These analyses controlled for SAT scores, GPA, fields of study, SES, selectivity of schools attended, advanced degrees attained, and sector of employment.

† Audit studies measure discrimination directly with experimental fieldwork. Audit studies can unambiguously demonstrate discrimination by presenting the subjects with two nearly identical candidates, who differ in only one characteristic, such as race, age, or gender. Thus, any systematic and differential treatment of the auditors by the subjects of the study can be directly attributed to discrimination.
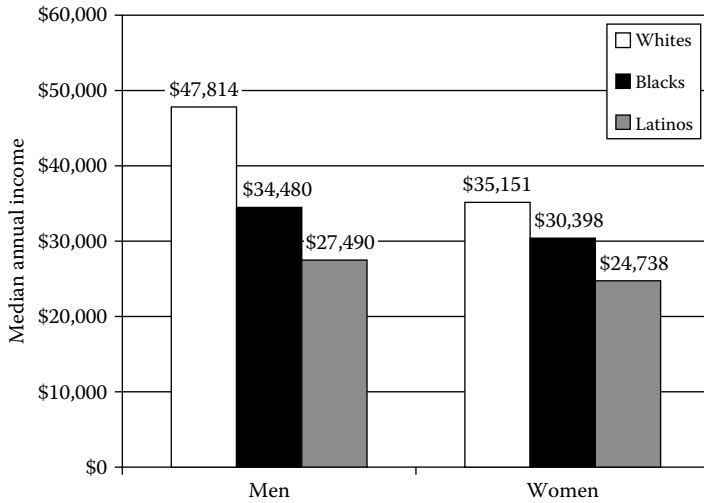
Figure 10.1 2006 median income by race and sex.

women (i.e., $260 more at initial offer, $231 more at final offer), black men were required to pay considerably more than white men for the same car, everything else being equal (i.e., $960 at initial offer, $1,133.6 at final offer; see Ayres, 1995).

Perhaps, the clearest way to appreciate gender-moderated racial differences in discrimination can be found in criminal justice outcomes. Figure 10.2 gives ratios of imprisonment in state and federal prisons for blacks and whites, and Latinos and whites as a function of gender for the year 2006. In sum, black men were imprisoned at a rate six times greater than that of white men. In contrast, the racial disparity among black and white women was less extreme, with black women being imprisoned at a rate three times greater than that of white women. This same basic pattern also held with respect to whites and Latinos. In addition, Ayres and Waldfogel (1994) have shown that racial discrimination in bail amounts is only found with respect to black and Latino men, and not with respect to black or Latino women. Similar patterns of gendered racial discrimination have been substantiated within the criminal justice system of the United Kingdom (Hood & Cordovil, 1992).

Recently, research has demonstrated the utility of using a classical conditioning paradigm to investigate psychological biases toward threatening or feared stimuli, including racial out-groups. For example, Olsson, Ebert, Banaji, and Phelps (2005) demonstrated that
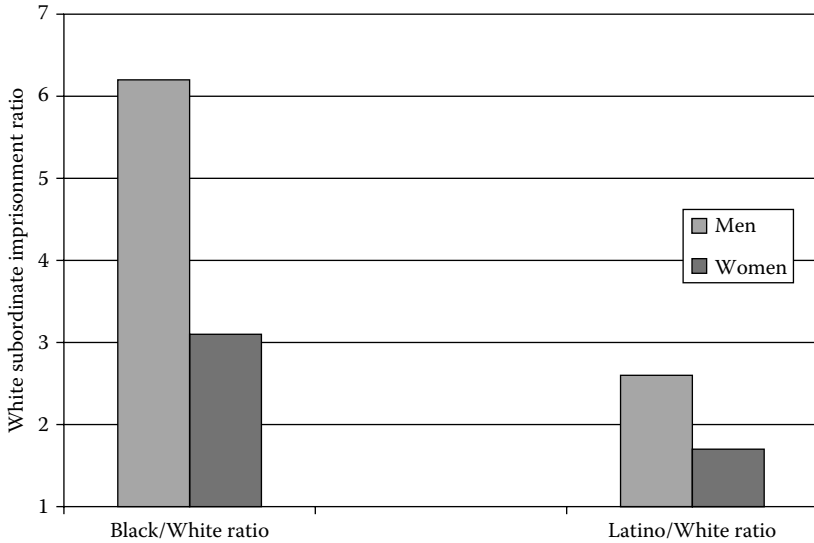
Figure 10.2 Ratio of black/white and Latino/white incarceration in American state and federal prisons as a function of sex in the year 2006.

conditioned fear toward facial displays of individuals belonging to a racial group other than one's own resists extinction, whereas fear toward faces of one's own racial group does not. Their results held for both white and black American research participants toward white and black out-group targets. In an extension of this work, Navarrete et al. (2009) demonstrated that the extinction bias directed toward out-group faces is specific to the faces of men only, that is, there are no differences in the extinction of conditioned fear between the faces of in-group women, out-group women, or in-group men; it is only out-group men faces that engender a resistance to extinction. Most importantly, these results demonstrate that, using a unique measurement of racial bias that precludes conscious control, psychological biases are primarily directed toward out-group men, not women. In addition, although much of the research investigating the targets of intergroup prejudice has focused only on subordinate groups as targets, these results find that both black and white participants exhibit a bias in response to men of their respective out-groups. This result lends support to our claim that the target of prejudice need not *necessarily* be a member of a subordinate group, but that this may often be the case given the asymmetries in power that often exist between subordinate and dominant groups.

In sum, the research detailed in this section has provided an abundance of evidence suggesting that when arbitrary-set out-group discrimination occurs, it is primarily men who serve as the targets of this discrimination. We now turn to research examining the agent side of intergroup prejudice. We intend to demonstrate that it is primarily men who fill this role but qualify this statement with the expectation that women will also exhibit prejudice toward out-group men, but that this prejudice reflects a distinct underlying motivation that differs from the primary motives of men.

Agents of Intergroup Prejudice

Keeping the distinction between out-group negativity and in-group favoritism in mind (see Brewer, 1979, 2007), our argument is not that in-group bias or in-group favoritism is gendered, but rather that it is out-group hostility and aggression that will tend to be gendered (see also Brown & Smith, 1989; Khan & Lambert, 1998; Rudman & Goodwin, 2004). That is, in addition to the evolutionary reasoning reviewed above, there is strong empirical evidence to suggest that men display greater out-group hostility, xenophobia, derogation, and aggression than do women.

Using survey methodology, Sidanius and Ekehammar (Ekehammar & Sidanius, 1982; Sidanius & Ekehammar, 1980) were among the first to systematically explore gender differences with respect to xenophobia and classical racism. In two relatively large and independent samples of Swedish high school students, not only did men tend to be more politically conservative in general* but they appeared to be particularly more xenophobic than their female counterparts. Shortly after the appearance of these first Swedish studies, other scholars began to replicate these gender differences using samples of British, South African, and Swedish respondents (see Ekehammar, 1985; Furnham, 1985; Marjoribanks, 1981).

Although theses early results are quite suggestive, they often did not compare men and women using exactly the same set of racism items across different samples, nor did they use racism items specifically selected with a clear negative tone of out-group hostility and superiority/inferiority. Therefore, we compared the largest Swedish data set originally collected by Sidanius and Ekehammar in 1979 with a moderately sized sample of high school students from Melbourne, Australia, collected in 1985.[†] To measure the construct of "classical racism" in as dominance oriented a fashion as the data would permit, we defined

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[*] With the exception of religiosity, where women were found to be consistently more religious than men.
[†] See description of Australian data set in Sidanius and Peña (2003).

racism by the degree of endorsement of a single item, "white superiority." The results showed the expected gender difference, with men exhibiting significantly higher levels of support for white superiority than women within both Sweden and Australia (Figure 10.3).

These same gender differences were replicated in the United States in a large sample of graduate and undergraduate students at the University of Texas at Austin in 1986 (Sidanius, Cling, & Pratto, 1991). In this study, classical racism was operationalized by the degree of support for the following five items: (1) "racial equality," (2) "a black President of the USA," (3) "each ethnic group should stay in its own place," (4) "there are too many blacks on campus," and (5) "white superiority." Results indicated that, across six ethnic categories of participants, men exhibited more explicitly racist attitudes than women (see Figure 10.4). Similar findings were observed in a study conducted approximately 10 years later at the University of California, Los Angeles (UCLA; Sidanius, Levin, van Laar, & Sears, 2008). Once again, classical racism was measured by items implying intergroup dominance and superiority/inferiority. Specifically, classical racism was indexed by the degree to which students endorsed the two statements: (1) "blacks are inherently inferior" and (2) "Latinos are inherently inferior." Across four different ethnic categories of participants, and consistent with the results found in
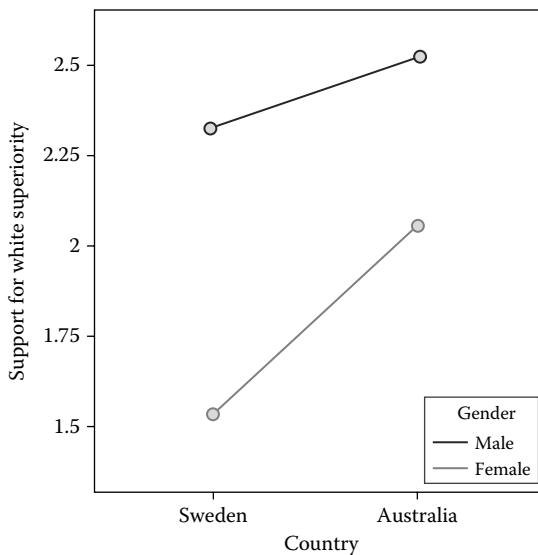
Figure 10.3 Support for white superiority as a function of gender and nationality (Sweden, $N = 772$, and Australia, $N = 274$, in 1979 and 1985).
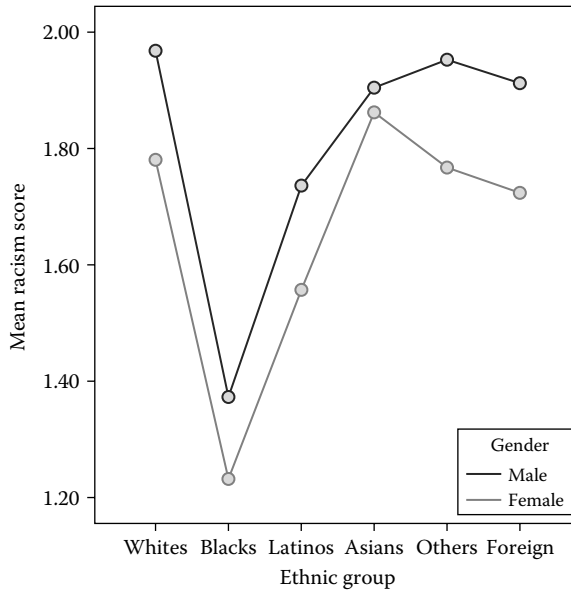
Figure 10.4 Classical racism as a function of gender and ethnicity among University of Texas students in 1986 ($N = 5,610$).

Sweden, Australia, and Texas, the California data showed significantly higher levels of classical racism among men than among women (see Figure 10.5). Importantly, there is evidence that these gender differences have persisted into post-Obama America and in a nonstudent sample. In a large sample of Harvard study pool participants and adult members of the Boston and Cambridge communities collected in 2009, men had significantly higher levels of racism than women, within both the student and nonstudent groups (see Figure 10.6).

Social dominance theorists have long argued that not only should one find greater explicit racism and xenophobia against specific ethnic groups (i.e., blacks, Latinos) among men relative to women, but that this greater out-group hostility among men should extend to arbitrary-set out-groups in general. This desire to establish and maintain dominant/subordinate relationships vis-à-vis a broad array of social groups is referred to as *social dominance orientation* (SDO; Pratto, Sidanius, Stallworth, & Malle, 1994; Sidanius & Pratto, 1999). In the last 20 years, SDO has become one of the most widely studied constructs within the field of intergroup relations and has been shown to predict negative attitudes against a wide range of denigrated social groups such as Jews, blacks, Muslims, Arabs, gays, women, Latinos, Asians, foreigners,
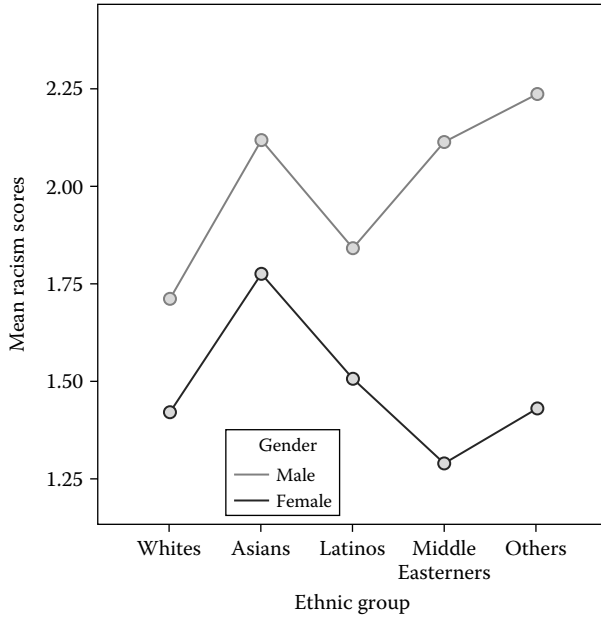
Figure 10.5 Classical racism as a function of gender and ethnicity among UCLA students in 1996 ($N = 1,694$).
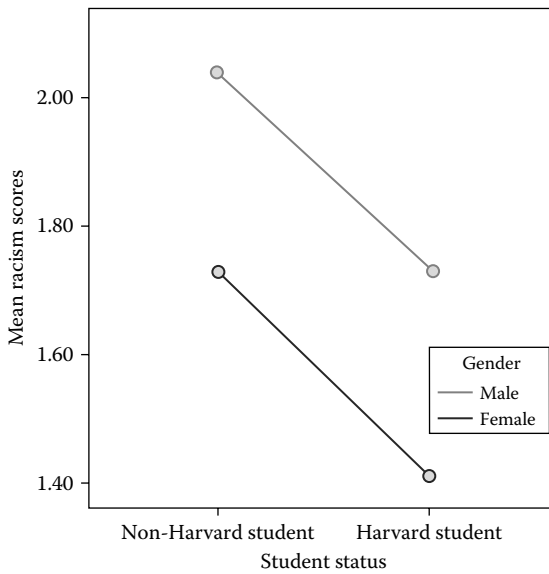
Figure 10.6 Classical racism as a function of gender and student status in 2009 ($N = 2,592$).

immigrants, refugees, poor people, and even minimal out-groups (e.g., Altemeyer, 1998; Esses, Veenvliet, Hodson, & Mihic, 2008; McFarland & Adelson, 1996; Sidanius & Pratto, 1999; Sidanius, Pratto, & Mitchell, 1994; Thomsen, Green & Sidanius, 2008). In addition, SDO has also been found to strongly predict a wide variety of group-relevant social attitudes and legitimizing ideologies such as social conservatism, racism, sexism, belief in the protestant work ethic, just world beliefs, support for free market capitalism, patriotism, nationalism, support for wars of aggression, opposition to wars for humanitarian reasons, and a range of other group-relevant social beliefs and ideologies (e.g., Pratto et al., 1994, 2000; Sidanius & Pratto, 1999).

In what has been labeled the *invariance hypothesis*, and for reasons outlined above, social dominance theorists have argued that, everything else being equal, men should display higher levels of SDO than women. The invariance hypothesis has been one of the most thoroughly examined and confirmed hypotheses within SDT. There is now very considerable and consistent evidence in support of this hypothesis found in scores of different studies, over dozens of different cultures, and using thousands of respondents (e.g., Levin, 2004; Pratto, Stallworth, & Sidanius, 1997; Sidanius, Levin, Liu, & Pratto, 2000; Sidanius & Pratto, 1999; Sidanius, Pratto, & Bobo, 1994; Sidanius, Pratto, & Brief, 1995; Sidanius, Sinclair, & Pratto, 2006). Most recently, Lee, Pratto, and Johnson (2009) conducted a meta-analysis using some 74 published and unpublished studies conducted between 1979 and 2004 on gender differences with respect to SDO. The data set contained 117 samples across 21 countries and employed 18,178 male and 20,524 female participants. Results revealed very robust gender differences that were particularly stable from sample to sample. Thus, these data clearly indicate that men not only have higher levels of prejudice against a particular out-group (i.e., blacks), but this higher level of out-group hostility among men seems to apply to out-groups in general.*

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* There are two versions of the invariance hypothesis: the strong version and the weak version (see Sidanius et al., 1995). The strong version expects SDO differences between men and women to be impervious to moderation (e.g., culture, gender role norms), and the weak version allows for the possibility that the gender differences in SDO might be moderated by factors in the social context (e.g., level of intergroup threat, ethnic homogeneity, power equality between men and women). However, the weak version would expect that this possible interaction between gender and contextual potential moderators will be ordinal rather than disordinal in nature. This is to say that while the degree to which men have higher SDO levels than women might vary across different contexts, this interaction will not produce higher SDO scores among women than among men, *everything else being equal.*

It should be noted that most of the aforementioned research, providing support for the prediction that men will be the primary agents of intergroup prejudice, appears to be primarily found with respect to aggressive and dominance-tinged forms of out-group prejudice. When dealing with more benign and less dominance-accented out-group discrimination, there is not only less consistent evidence of greater prejudice among men than women, but here women may be the more discriminating gender. In a review of the literature addressing gender differences in racial attitudes, Hughes and Tuch (2003) argue that in many domains, there are either no significant gender differences in racial attitudes or women express more biased attitudes than men. Interestingly, and largely in support of our predictions on the underlying motivations of women's prejudice, many of the domains in which women exhibit greater prejudice than men concern issues of intimacy, that is, women are less accepting of close social relationships with out-group men (Bogardus, 1928, 1959; Muir, 1990; Muir & McGlamery, 1984; Owen, Eisner, & McFaul, 1977). In their own research, Hughes and Tuch (2003) investigated two large nationally representative surveys in the United States for evidence of gender differences in racial attitudes. Although men were found to exhibit more racially intolerant attitudes than women on a number of items, these effects were generally quite small in magnitude, largely inconsistent, and often disappeared when the authors included a number of control variables (education, age, political ideology, religiosity, etc.). In more recent work, Fisman, Iyengar, Kamenica, and Simonson (2008) investigated racial preferences in the context of a speed dating study and found that women exhibit stronger racial preferences than men, such that women are more likely to exhibit same-race dating preferences. Putting all of these findings together, the data seem to suggest that men's racial prejudice is greater than that of women with respect to more aggressive and dominance-oriented forms of arbitrary-set prejudice (e.g., endorsement of white superiority and black inferiority) but not with respect to various forms of in-group favoritism and social distance.

Although there seems to be abundant evidence in support of the predictions that men will be the primary agents of aggressive and dominance-oriented intergroup prejudice, there is at least some evidence that is not quite consistent with this expectation. For example, Haley, Sidanius, Lowery, and Malamuth (2004) found that white and black study participants recommended the most severe punishments for crimes when they were described as being committed by a male target belonging to a racial out-group rather than a female out-group target, or male and female in-group targets. Although this finding is

consistent with the "target-side" prediction of the SMTH, they also reported that there were no significant sex differences among research participants. That is, male and female study participants demonstrated equal amounts of bias against out-group men. Thus, even with some apparently hostile forms of intergroup bias (e.g., relatively severe criminal sanctions) where men are victimized more than women, it is not always the case that men will be the strongest advocates for aggressive outcomes. Clearly, more work needs to be done to uncover exactly when men will and will not act more aggressively toward out-group men than will women.

Motivations for Prejudice

Although we have asserted that women should be motivated to avoid out-group men in order to protect reproductive choice, it is important to note that such behavior does not come without costs. In practice, active avoidance of out-group men requires heightened cognitive attention to threatening cues and the exertion of energy as one attempts to avoid potential threats. This increase in cognitive effort and expended energy comes at the cost of failing to direct that effort toward other tasks also crucial to survival and reproduction. Taking such costs into consideration, it is likely that an avoidance mechanism selected to protect female choice would be calibrated to influence behavior during times when reproductive choice is at greatest risk, that is, during ovulation, or when copulation is most likely to result in conception. It may also be the case that an avoidance mechanism would be sensitive to variations among women in the extent to which they appraise themselves as being vulnerable to sexual coercion. In this way, avoidance and fear of out-group men is greatest among women who perceive themselves as being particularly vulnerable to such threats, and during times when the risk is greatest, thereby minimizing the energy expended in the service of protecting a woman's reproductive choice.

To test these predictions, Navarrete, Fessler, Santos Fleischman, and Geyer (2009) designed a study to investigate the influence of conception risk and perceived vulnerability to sexual coercion on the expression of race bias. In a university sample of white women, the researchers found that conception risk (a value reflecting a woman's proximity to the ovulatory period within her menstrual cycle) was positively associated with greater race bias. Importantly, race bias was measured in a variety of ways, including an explicit measure, two implicit measures (stereotype and evaluative implicit association tests; Amodio & Devine, 2006), a measure of fear of male targets, and a measure of mate preferences. When these measures were formed into a composite variable, the

relationship between conception risk and race bias was $r = .45$. In addition, the authors performed a regression analysis predicting race bias as a function of conception risk and an individual difference measure of perceived vulnerability to sexual coercion (e.g., "I avoid going out alone at night" and "I am wary of men"; Senn & Dzinas, 1996). The results revealed a two-way interaction such that the relationship between race bias and conception risk was greatest when perceived vulnerability to sexual coercion was high.

In an extension of these findings, Navarrete, McDonald, Molina, and Sidanius (2010) found that a woman's perceived vulnerability to sexual coercion is more strongly related to fear of out-group men than any other combination of race and gender (i.e., in-group men, out-group women, in-group women). The results of these studies support our contention that women's prejudice serves specific goals, namely, the protection of women's reproductive choice via increased fear toward and avoidance of out-group men when the threat to reproductive choice is greatest.

As was the case with women, it is also important to consider the potential costs incurred by men who use an approach-oriented strategy to dominate sexual rivals of the out-group. It should already be clear that among men, intergroup conflict is a high-risk/high-reward endeavor where the losers often lose their lives. As such, the propensity to engage in such a strategy likely requires more than the basic desire to dominate the men of the out-group; one must also appraise oneself as a formidable opponent. The greatest expressions of out-group bias then should be displayed by men who most strongly desire to dominate the out-group *and* who also perceive themselves as being best equipped to overcome the steep costs of conflict.

In an attempt to understand the male-specific psychology of prejudice, Navarrete et al. (2010) examined how individual differences in dominance motivations and aggressive formidability interact to predict race bias. The authors used a measure of SDO (Pratto et al., 1994) to assess one's desire to dominate out-groups. Aggressive formidability was assessed using a measure of aggressive behavior (Buss & Perry, 1992). Results revealed a three-way interaction, such that, among men, explicit race bias was related to aggression most strongly when SDO was high. In other words, race bias was greatest among men with a history of aggressive behavior and greater social dominance motives. In contrast, the interaction of SDO and aggression did not predict increased race bias among women.

Altogether, these results support the notion that race bias is moderated by separate psychological systems within men and women, being associated with the combination of aggressive formidability

and dominance motivations among men and vulnerability to sexual coercion among women, particularly when threats to reproductive choice are most costly. Furthermore, these results, in combination with those previously discussed, provide compelling evidence that both men and women exhibit out-group prejudice, that this prejudice is primarily directed toward out-group men, and that the targeted out-group need not necessarily be a subordinate or minority group. In addition, this research has generated evidence in support of the prediction that prejudice directed toward out-group men is predicted by different traits for men and women that reflect different underlying motivations, specifically fear of sexual coercion among women and aggressive social dominance ideation among men.

DISCUSSION

In our revisiting of SMTH proposed by SDT, we have attempted to fit it into a firmer conceptual grounding in evolutionary theory, namely the theories of parental investment and sexual selection; in doing so, we have clarified and extended the predictions asserted by the SMTH. First, we have reasoned that the differences in obligate parental investment between men and women have set up an incentive structure that favors competitive and risky behavior among men in the service of acquiring mating opportunities. The logic behind intrasexual competition among men was then extrapolated to intergroup relations where in-group men compete with out-group men for access to territory, status, mates, and other resources. Because women are considered a highly valued resource among men, they are not targeted as members of out-groups for harm or debilitation, but are instead often incorporated into the winning group. This logic confirms the initial prediction of the SMTH that men serve as the primary targets and agents of intergroup aggression. However, the SMTH additionally specified that it should be men of *subordinate* groups who are primarily targeted. We have attempted to revise this assertion using logic from parental investment theory and sexual selection and have also cited evidence in which subordinate groups have displayed intergroup biases toward dominant groups. Second, we have tried to clarify the types of intergroup prejudice that men and women are likely to be the agents for. We have suggested that there is little reason for gender differences with respect to intergroup prejudice manifested as in-group bias and in-group favoritism. Rather, it is within the domain of intergroup prejudice expressed as out-group denigration, social predation, and the violent establishment of dominant/subordinate intergroup architecture where one

should expect gender differences. Thus, men are expected to not only express a greater general willingness to establish and maintain systems of dominant/subordinate intergroup relations (e.g., as expressed by higher levels of classical racism and social dominance orientation), but also actively engage in very dangerous and violent forms of intergroup competition (e.g., hate crimes, gang wars, intertribal and interstate war). Finally, we have argued that the initial prediction made by the SMTH that men should act as the primary agents of intergroup aggression must be clarified to reflect a female-specific psychology of intergroup prejudice. Specifically, as a function of a long evolutionary history of being subjected to violent sexual aggression, women may have evolved psychological mechanisms that foster fear and avoidance of out-group men. As such, men's intergroup prejudice can be characterized as an approach-oriented strategy motivated by the desire for social dominance, whereas women's intergroup prejudice can be characterized as an avoidance strategy, motivated by the desire to protect one's reproductive choices. The net results of these clarifications and extensions have prompted us to summarize these expectations with the label, "Theory of Gendered Prejudice."

This new perspective emphasizes the importance of exploring racism, ethnocentrism, and arbitrary-set prejudice as a gendered phenomenon. That is, in studying the psychology of intergroup prejudice, the consideration of the gender of the target, the gender of its agents, and the character of the prejudice (i.e., as in-group favoritism or as out-group aggression) are key to understanding the fundamental nature of prejudice. We also hope that we have demonstrated the utility inherent in the integration of theories from the natural sciences with those from social psychology. Our use of parental investment and sexual selection theories provided a useful guide in understanding the functions served by prejudice and also in generating hypotheses regarding a gender-specific psychology of prejudice. We believe we have provided important clarifications and extensions of SDT that assist in framing intergroup prejudice as a functional endeavor in which men and women, through different mechanisms, cope with the gender-specific threats associated with intergroup conflict.

Although evolutionarily informed theories of social behavior are sometimes met with charges of biological determinism, we hope that it is clear from our arguments that we have not asserted invariant mechanisms that will inevitably lead to prejudiced behavior. Instead, we have attempted to illustrate the flexibility of these mechanisms as a function of the costs and benefits associated with the expression of prejudice. For example, the costs of intergroup aggression make it such that only those

men both with the goal of group domination and who appraise themselves as being aggressively equipped to meet the demands of the interaction are likely to pursue such a strategy. Among women, intergroup prejudice varies as a function of one's self-perceived vulnerability to sexual coercion and is also temporally influenced by hormonal fluctuations throughout the menstrual cycle. To be sure, intergroup prejudice is a relentlessly persistent phenomenon that has transcended time and geography, so to suggest that its underlying mechanisms are flexible certainly does not mean that they are easily manipulated to reduce the expression of racist and xenophobia attitudes, emotions, and behaviors. However, understanding these mechanisms is a necessary, albeit certainly not sufficient, first step in the right direction.

In our exploration of the underlying mechanisms of intergroup prejudice, we have certainly not been as comprehensive as is necessary for a complete account of the psychology of prejudice in all its forms, and there are surely a variety of other mechanisms at play. For example, relatively recent work on the behavioral immune system suggests that fear and avoidance of out-group members may serve the function of limiting contact with groups that have been exposed to parasites or diseases to which one's group has not developed an immunity (e.g., Schaller & Duncan, 2007). Additionally, although we have attempted to provide a foundation for understanding a female-specific psychology of prejudice, a comprehensive account is lacking, particularly in the domain of female coalitional aggression. Though perhaps more rare than male coalitional aggression, and possibly of a different form that is more akin to "clique" psychology (e.g., Grotpeter & Crick, 1996; Hess & Hagen, 2006), research in this area could conceivably provide important insights regarding women's prejudice and is waiting to be developed in greater detail. It is also apparent from years of research that many factors play an important role in the propagation of prejudiced beliefs and behavior. It should be clear, then, that no single theory can carry the burden of explaining and understanding the nature of racism and ethnocentrism. An integrative theoretical framework supported by empirical evidence is crucial for research on the nature of intergroup relations to progress.

Finally, we would like to say a word about Marilynn Brewer's influence on the thinking in this chapter. While none of the authors of this chapter have had the privilege of being either graduate students or postdocs under Marilynn Brewer, one of us (Jim Sidanius) did have the invaluable opportunity of having Marilynn as a senior colleague at UCLA for five marvelous years. While no one can accuse Marilynn of being a social dominance theorist, my frequent theoretical encounters

and disputes with her over this all too short 5-year period had a pro-found influence on me as a maturing academic and on the subsequent development of SDT. Most memorably, it was Marilynn's gentle, but insightful querying and probing of my early thinking within SDT that led to the development of the notion of the counterbalancing effects of hierarchy-enhancing and hierarchy-attenuating social forces, an idea which has come to play a central role in SDT. I was heartbroken when Marilynn decided to leave UCLA to take up a position at Ohio State University in 1993. Although we still maintained contact after her departure, nothing could replace the almost daily exposure to her wise counsel and sharp intelligence. Marilynn Brewer has influenced me in more ways than almost any other living scholar I can think of. I cannot thank her enough for simply being who she is.

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11

INTERGROUP RELATIONS AND MAJORITY OR MINORITY GROUP INFLUENCE

William D. Crano and Vanessa Hemovich

The study of intergroup relations almost inevitably involves consideration of the relation between majority and minority groups, for it is rare that interacting groups share equal billing across all relevant comparison dimensions, and these differing dimensions often are materially involved in the definition of in-group and out-group, and majority or minority status. Though the linkage is obvious, research focused *specifically* on the association of intergroup relations with the majority and minority status of interacting groups is not nearly as common as might be expected, and this is unfortunate as each area has much to commend itself to the other (see Brewer & Weber, 1994; Wenzel, Mummendey, & Waldzus, 2007). In this review, we suggest some of the potential gains that may be realized by closer consideration of the integration of research insights drawn from the two areas, insights that would allow the advances of each field to enlighten the other. This integration is far from complete, as the requisite data for a full-blown amalgamation are unavailable; however, even the embryonic combinations suggested here will highlight some of the advances that may be made with closer consideration of the mutuality of research drawn from these two critical areas. The unwritten back story is that this integration may draw together research on social influence or persuasion concerned with group processes and intergroup interaction. As these foci are the defining aspects of the discipline, this integration would bode well for

the future of social psychology and its likely contributions to science and even, perhaps, to society at large.

IN-GROUPS AND OUT-GROUPS

The etiology and manifestation of in-group and out-group dynamics and the impact of these social differentiations on individual behavior are well documented, though extrapolations from the standard research models sometimes are overextended. Considerable research suggests that among other features, in-group members share a common identity, interdependent group norms, collective group goals, and common experiences (Blanz, Mummendey, & Otten, 1997; Brewer & Campbell, 1976; Campbell, 1958; Gaertner & Schopler, 1998; Lickel et al., 2000; Sherif, 1965, 1966, 1996; Welbourne, 1999). However, while there is little doubt that we differentiate among groups, there also is little doubt that these differentiations may be quite fluid and affected by a host of factors over and above those directly relevant to group membership. The adoption of a one-variable-at-a-time mentality can obstruct consideration of other common factors that moderate social interaction. A critical question to be addressed in any consideration of intergroup relations is, "How do in-groups and, by extension, out-groups, come about?" Tajfel (1970, 1978, 1981) provided one answer to this question— an admittedly incomplete one—when he discovered that people often display a propensity to group themselves and those around them into meaningful social categories on the basis of even trivial features, and to use these groupings in evaluating others who are, or are not, included in the grouping. This mere *categorization* tendency has been more than adequately documented in research using the minimal group paradigm and has been the source of hundreds of social psychological studies, many of which look suspiciously like others that already have seen the light of day. We might consider these as minimal contributions to understanding the minimal group paradigm.

In this paradigm, participants choose between options that are designed to have little evaluative implication: "Which do you prefer, the Kandinsky or the Klee? Still or sparkling? Catsup or mayo?" Based on choices of this type, respondents are categorized into one of two groups, and then typically are tasked with allocating rewards to the group-categorized members. Although these differentiations are trivial, the reinforcements allocated to in-group and out-group members often differ substantially. An art critic might feel that the distinction between Klee and Kandinsky is far from trivial, and thus the differential response may have *some* basis. However, one would

be hard put to justify allocation and evaluation differences based on information that some individuals tend to overestimate the number of black dots projected onto a white screen, while others tend to underestimate, especially when these individuals are assigned at random to overestimator or underestimator strata. Even if this were not so, there would seem to be nothing of intrinsic value differentiating one group from the other. Yet, those assigned to one or the other of such groups have been shown repeatedly to be ready and willing to discriminate on the basis of this and similar whimsical distinctions.

Though well documented and reliable, the tendency to group on trivial bases and then use the resultant group status to structure in-group and out-group relations has limits, which all too often are glossed over (see Diehl, 1988, 1989, 1990). The tendency to overgeneralize the typical minimal group findings does not mitigate the central result, but it certainly forestalls more comprehensive understanding. It seems that the *in-group = deserving* and *out-group = unworthy* interpretation owes, in part, to the use of research designs that have focused determinately and exclusively on the distribution of positive outcomes to in-group or out-group members in the minimal group paradigm for, indeed, the great majority of minimal group studies have used the allocation of positive rewards as the critical outcome variable, despite warnings about the threats to generalizability that such mindless consistency entails (Crano & Brewer, 2002; Dobbs & Crano, 2001). This tendency to focus on the provision of positive reinforcements probably is a result of researchers' propensity to follow the lead of early research in the field, which almost unswervingly made use of Tajfel allocation matrices as the central dependent measure despite Tajfel and colleagues' early insistence that allocating penalties in lieu of rewards was an acceptable indication of discrimination in the minimal group paradigm (Tajfel, Billig, Bundy, & Flament, 1971, pp. 153–154).

What happens when in-group members must allocate negative outcomes? Even in the absence of data, it seems reasonable to assume that when outcome valences change, distributional tendencies may be altered as well. Research suggests that this conclusion should be considered seriously and its implications for social relations carefully explored. Dobbs and Crano (2001), for example, found that merely making allocators accountable in a minimal group reward distribution task mitigated in-group favoritism, and this tendency was especially pronounced when the allocator was of majority group status. Such participants appeared unwilling to overallocate positive reinforcements to fellow majority in-group members at the expense of members of minority out-groups. Apparently, even in-group favoritism has its limits.

Mummendey et al. (1992) showed that the mere categorization effect could be mitigated when the allocation task involved negative outcomes (e.g., allocating the amount of time another must spend in an uncomfortably noisy room). She posited an "aggravation hypothesis" to account for her findings, speculating that "negative stimuli may lead to a more analytic, more careful, more accurate way of processing the information in the social situation provided" (Mummendey, 1995, p. 667). This kind of thoughtful, careful appraisal may not be entirely consistent with quotidian behavior, but it does occur—at least sometimes—and certainly deserves study in any serious discussion of intergroup interaction.

Why should these anomalous results matter? Because they could result in, or be the result of, a superordinate recategorization of the (out-group) target, which could personalize the dynamics of the allocation setting, thereby dampening discrimination (Otten, Mummendey, & Blanz, 1996; Wenzel et al., 2007). The superordinate recategorization process may offer important insights to those working to develop ways of minimizing the damaging effects of ethnic, racial, or sexual discrimination in real-world contexts. Mummendey's aggravation model might even be seen as a lead-in to the proposition that although we do, indeed, tend to value those with whom we share a common group identity, this tendency does not inevitably lead to discrimination against our out-groups, a position consistent with Brewer's (1999a) convincing argument. Both Brewer (1991, 1993) and Mummendey (Mummendey, 1995; Mummendey & Otten, 1998) have argued for a more nuanced view of the process by which social identities are formed and operate in determining intragroup and intergroup dynamics, with Brewer & Weber (1994) arguing that the distinctive in-group identity that is characteristic of minority group members is likely to facilitate "unit formation" and "reduced differentiation" among (fellow minority) group members, whereas majority group members appear more likely to engage in interpersonal comparison with in-group members, which may result in contrast effects.

Spears and Lea's (1994) social identity deindividuation model has provided a theoretical framework for organizing these possibilities, which certainly could not be anticipated on the basis of the simple extrapolation from the admittedly common and consistent results typical of the mere categorization studies, which support the idea that we reward our in-group and, by extension in zero-sum contexts, punish the out-group (see also Postmes & Spears, 1998; Reicher, Spears, & Postmes, 1995). Although considerable research supports the general conclusion that in-group members do value the in-group more than the out-group and respond

to and reward group members accordingly—especially in circumstances involving distributions of positive outcomes—understanding the conditions under which the common distribution and evaluation rules do *not* apply is useful and enlightening in developing a more complete understanding of factors that affect intergroup relations.

SELF-EVALUATION

In addition to affecting intergroup relations, our group memberships have considerable influence on the ways we evaluate ourselves. Social identity theory is focused on the manner in which groups interact, with considerations of the in-group or out-group nature of interacting groups or collectives and with our assessments of these groups on our self-evaluations (Tajfel & Turner, 1979). In their self-categorization extension of social identity theory, Turner, Hogg, Oakes, Reicher, and Wetherell (1987) proposed that our personal identity is concerned with the ways in which we interface with members of our own (in-)groups. Self-categorization is concerned principally with the ways the individual's self-concept is established or bolstered. When personal identity is made salient, people often use other in-group individuals to help them judge the quality of their abilities, or the correctness of their beliefs.

Past research has provided valuable insight into how this process unfolds. More than a half century ago, Leon Festinger described the operation of this process in his theory of social comparison. He proposed that we would use others as comparison partners in uncertain social contexts when objective methods of judging one's relative skill level or the correctness of one's beliefs were unavailable (Festinger, 1954). We could learn how to behave under uncertainty by monitoring and emulating the behaviors of others. Admittedly, this tack is susceptible to the dangers of pluralistic ignorance, but in general seems to work well if certain constraints are honored (Brewer & Crano, 1994; Miller & McFarland, 1991). Festinger was quick to point out that the choice of comparison partners was far from whimsical, insisting that comparators must be similar, at least in terms of the feature under comparison. Thus, in the absence of an objective gold standard, a chess grand master might seek to compare with other masters to gain insight into the quality of his or her game. The grand master would not be likely to use either author of this review as comparators, as neither would provide much in the way of opposition and thus the comparison would not allow an informative self-assessment of chess ability for either party.

Research on the tendency of individuals to choose *similar* comparators has not proved overly supportive of the theory, as an uncomfortable

number of studies have shown that similar others are not always sought for purposes of (social) comparison. Reflecting on their failure to confirm the expectations of social comparison theory, Olson, Ellis, and Zanna (1983) suggested that the particular judgment under study could play a significant role in perceivers' choices of comparators: "The nature of the judgment itself affects the strength of the drive (for social comparison). Indeed, the objective-subjective dimension may have additional implications not yet explored. … For example, individuals may prefer similar others for evaluating judgments they consider to be subjective, but the similarity of referent others may be less important for evaluating objective judgments" (p. 433). In research relevant to this possibility, Gorenflo and Crano (1989) showed in two experiments that participants preferred to compare their judgments with similar ones only when the task was cast as involving subjective preferences; when the (same) task was perceived as involving objective judgments, they preferred to consider assessments that they knew to be inconsistent with their own.

Extrapolating these findings to a group context suggests that in-group members may be more highly valued as information sources of, and preferred models for, identifying in-group expectations, abilities, attitudes, norms, and behaviors (Brown, Novick, Lord, & Richards, 1992; David & Turner, 2001a, 2001b; Goethals & Darley, 1977; Miller & Prentice, 1997; Miller, Turnbull, & McFarland, 1988). However, in objective judgment contexts, we might prefer outsiders, as they may be prone to different sources of invalidity than in-group members, and hence may be more useful sources of information when matters of fact are under consideration. If I do not know the name of major league baseball's most valuable player in 1996, there is a good chance that members of my faculty—an obvious in-group—might not either. On the other hand, members of a rival college's baseball team might, and if the guess was important (e.g., the object of a large wager), I would be more prone to consider the information of the out-group as more useful for my purposes. In research that complements this reasoning, Brewer and Weber (1994) have provided a useful discussion of the activation of intragroup or intergroup assimilation or contrast comparison processes as a function of the perceiver's in-group or out-group membership status in majority or minority groups. Their research revealed that majority group members tended show contrast effects in self-evaluative comparisons with in-group members, whereas members of minority groups were more likely to exhibit assimilation with fellow minority group members and contrast with out-group (majority) members.

Research by Crano (1994) and Hannula-Bral (1994) supported the possibility that preference for in-group or out-group members as

information sources might vary as a function of task and context. Their study showed that in settings that involved subjective judgments in a norm formation task (i.e., one in which a group or individual preference had not been established), the (in-group) majority was more influential than an in-group minority. The groups had been created via an extension of the usual the minimal group paradigm. However, when the identical judgment task was thought to allow for an objective conclusion (i.e., one involving a consensually agreed upon "correct" answer), the in-group minority was more influential than the in-group majority. This result is intriguing as it points to a specific context in which in-group minorities may, in fact, enjoy a persuasive advantage. When the task involves an objective judgment on which there is not a strong established belief or preference, the minority may provoke greater message acceptance. With enhanced attention to its message and no established or vested position on the part of the audience, the minority's message may prove even more influential than that of the majority.

Crano and Hannula-Bral (1994) assumed that this outcome would occur owing to the enhanced salience of minorities, which, almost by definition, are more rare and unusual than the majority. As such, the minority's persuasive communications were more likely than those of the majority to be attended to and elaborated. Under these circumstances, given a strong message and a context in which no strong position had been established, the usual resistance to minority influence was not expected. The hypothesized enhanced attention to the minority's position coupled with a credible communication was expected to result in greater influence, and this expectation was confirmed. In a true *attitude formation* context, that is, one in which a strong position has not been established, these results foster the rather unusual prediction of the primacy of minority influence sources over majority sources (see also Olson & Kendrick, 2008). Crano and Hannula-Bral's (1994) results lend support for this proposition and reemphasize the important distinction between attitude formation and attitude change, which has been noted only occasionally in previous research, but which deserves considerably more attention (Crano & Prislin, 2006; Johnson & Eagly, 1989, 1990; Walther & Langer, 2008).

IN-GROUP POSITIVITY

The tendency to privilege the in-group can emerge in direct response to the degree to which the group has become integrated into one's sense of self (Brewer, 2001; Ellemers, Spears, & Doosje, 1997). Accordingly, we are more likely to provide support or assistance to in-group members,

while denying the same aid to out-group others (Gaertner, 1973; Halevy, Bornstein, & Sagiv, 2008). Generalizing to the realm of ethnocentrism, research has produced findings consistent with the implications of these expectations. The tendency to view one's own group as vastly superior to an out-group, which often is regarded as inferior, loathsome, or contemptible, has been noted and commented upon for many years and has played a critical role in our understanding of intergroup relations. In LeVine and Campbell's (1972) important and underappreciated monograph, the authors maintained that ethnocentrism could fuel cooperation within the group, with little regard to the fate of out-groups. Brewer (2001) acknowledged the possibility for intergroup attitudes to turn antagonistic, particularly in contexts involving scarcity or perceived out-group threat, but as we shall see, she did not view antagonism toward out-groups as inevitable. This insight has proved valuable in understanding the results of considerable research that identified strong in-group favoritism without accompanying out-group discrimination.

LeVine and Campbell's (1972) work followed on the heels of Sherif, Harvey, White, Hood, and Sherif's (1961) classic robber's cave experiment. In the grand tradition of intergroup competition research, many studies seeking to understand the development or the surmounting of intergroup conflict were produced by Sherif and Sherif (1953), Brewer and Brown (1998), Fiske (1998), and Sanders (2002), among others. The importance of this research theme is its identification of, and emphasis on, the importance of superordinate goals or shared adversity in fostering intergroup cooperation, which ultimately can lead to improved relations between the in-group and the out-group (Sherif, 1966). On the obverse of this coin, other research at this time demonstrated how competition with other groups, or perceived external threat, directly enhanced positive affect toward the in-group, combined with concomitant rise of negative affect or derogation of the out-group (Druckman, 1968; Rabbie, Benhoist, Oosterbaan, & Visser, 1974; Sanders, 2002; Sherif & Sherif, 1953). Even so, it would be a mistake to view derogation and disparagement as inevitable outcomes of intergroup competition, despite the consistent actions of right-wing leaders in the U.S. Congress. As Allport (1954) and others have argued, in-group pride, in-group patriotism, and other characteristic features of *in-group positivity* need not spring from aggression, derogation, or other forms of socially destructive hostility toward out-groups (Bigler, Jones, & Lobliner, 1997; Brewer, 1979, 2001; Cameron, Alvarez, Ruble, & Fuligni, 2001; Cashdan, 2001; Feshbach, 1994; Hewstone, Rubin, & Willis, 2002; Hinkle & Brown, 1990; Kosterman & Feshbach, 1989; Mummendey, Klink, & Brown, 2001; Rabbie, 1992; Struch & Schwartz, 1989; Turner,

1978). Obviously, bias often is manifested in response to the mere classification of people into separate groups (Brewer, 1979; Brewer & Silver, 1978; Messick & Mackie, 1989; Tajfel, 1970); however, this bias is not inevitable. Even young children when asked to make direct comparisons between their in-group and an out-group made judgments that indicated the emergence of in-group positivity in the absence of out-group negativity (Kowalski, 2003).

Bennett et al. (2004) have argued that out-group derogation toward out-group nationalities was not a requisite component for the formation of the positivity bias among youth reporting high favoritism or excessively positive attitudes about their own (in-group) nationality. These results are consistent with the findings of Mummendey et al. (1992), who showed that although individuals may actively seek to allocate benefits in a manner that advantages the in-group, they are disinclined to cause harm to the out-group. This result is especially likely when participants know they will be made to justify their behavior to those against whom they discriminated (Dobbs & Crano, 2001).

In accord with the preponderance of evidence supporting the perspective that in-group bias need not arise primarily from out-group derogation, Brewer (1999b, p. 429) observed that "much in-group bias and intergroup discrimination is motivated by preferential treatment of in-group members rather than direct hostility toward out-group members," and this position highlights several key principles that influence the development and progression of positive intergroup attitudes without reference to out-group negativity. Social categorization is recognized as an important component of the process that fosters identification of in-group similarities and out-group differences (Brewer, 2001; see also Doise, 1978; Tajfel & Wilkes, 1963). The level of identification and assimilation with an in-group can moderate the future development of favorable in-group attachments and attitudes and, eventually, in-group positivity. Partially due to consistency motives and some aspects of social identity theory (Tajfel & Turner, 1979), increases in assimilation to one's in-group prompt more favorable evaluative attitudes toward that group. This process provides ample foundation for the development of in-group bias (Aberson, Healy, & Romero, 2000; Hogg & Abrams, 1988). Further, social comparisons that shine a markedly positive light on one's in-group compared with the out-group also bolster positive in-group affect.

None of these positive group-favoring behaviors, however, necessarily involves a concomitant negative response to the out-group. Indeed, in some contexts involving minority group influence, research shows that minority out-groups are rarely derogated, even when they suggest positions extremely different from their audience's established beliefs.

Often, the minority is not derogated even in these circumstances; indeed, Kruglanski and Mackie (1990) have suggested that minority group members actually may be admired for their courage in standing up for their beliefs. This response may not always result in persuasion, but it is unlikely to result in minority derogation, even if the minority is an out-group. In their research using both in-group and out-group minorities as sources of counterattitudinal communications, Alvaro and Crano (1996, 1997) found that in-group minorities could affect group beliefs, but out-groups had no persuasive effects whatsoever. There was no correlation between respondents' positions and that recommended by an out-group communication source. However, there also was no evidence of derogation, a result reminiscent of earlier results reported by Brewer and Crano (1968), who found that no matter how different their position is from the respondent's, the out-group minority had no effect on in-group attitudes. Results of this type do not lend much credence to the necessity of out-group derogation in the service of in-group positivity. Of course, all bets are off if the out-group is seen as actively attempting to undermine the central core beliefs of the in-group, that is, the features that make the group a group. In that circumstance, a powerful riposte can be expected from the threatened in-group; indeed, in their discussion of the leniency model of minority influence, Crano and Seyranian (2009) argued that even *in-group* minorities that threaten important identity-defining features of the majority will be cast out into the outer darkness, otherwise known as the out-group.

OPTIMAL DISTINCTIVENESS THEORY

Research focused on motives and antecedents of group membership has yielded important theoretical contributions, many of which dovetail with insights into the workings of minority and majority groups. One such contribution is optimal distinctiveness theory (Brewer, 1991), which presupposes that social identification involves the interplay of motives to assimilate (or be included in a group) and to differentiate oneself from that group to bolster one's sense of individuality or independence. The theory holds that people strive to maintain an optimal balance between competing inclusion and distinctiveness needs. We do so by identifying with an in-group and immersing ourselves within a subpart of the in-group that is perceived as distinct from other subgroups within the larger group. The immersive subgroup, by definition, is a minority of the larger superordinate in-group. Brewer and Pickett (1999) concluded that conditions of high group cohesion and inclusion resulted in low levels of assimilation arousal, but strong desire for differentiation, while

low group cohesion and inclusion triggered higher assimilation needs, with a concomitant reduction in need for differentiation.

Insights relevant to the success of minority in-groups in affecting the majority may be deduced from these results. For example, we know from the literature on intergroup relations that most intact, cohesive groups (other than extremist groups, a special case) tend to assume that there exists a reasonable degree of in-group variation in beliefs and norms. Differences of opinion are not particularly surprising to members of cohesive groups and do not motivate punitive responses by the in-group (opinion) majority. In these groups, we expect greater latitude of belief and behavior and thus there is a greater likelihood that in-group (opinion) minorities will emerge.

In groups of low cohesion or those under threat, however, a more rigid orthodoxy is expected. Minority positions are perceived as potential threats to group integrity, and minority groups, even minority in-groups, do not fare well. In the boundary condition, which involves extremist groups, this intolerance of in-group deviance is well established (e.g., see Haslam & Turner, 1995; Hogg, 2004, 2007; Hornsey & Hogg, 1999). In such groups, the orthodoxy is so extreme that all aspects of the group's ethos and belief system are considered sacrosanct. Deviation from even one of the central values is viewed as a threat to the very existence of the group and hence is grounds for excommunication. In such systems, all deviations from orthodoxy are judged fatal.

Informative theoretical contrasts arise from consideration of optimal distinctiveness theory in light of theories of in-group positivity and other social identification models. For example, social identity theory maintains that in-group *and* out-group social comparisons are made to foster positive in-group distinctiveness (Tajfel & Turner, 1979). An example of this twin comparison model is found in the process of out-group derogation, which shines a positive light on the in-group by focusing on comparatively negative attributes of a targeted out-group. Although both the social identity and the optimal distinctiveness approaches underscore the importance of positive social identity needs, Tajfel's theory appears to appeal to motives to establish in-group positivity through intergroup social comparisons (against an out-group). Conversely, optimal distinctiveness theory suggests that the motivational dimension for social identity is established primarily through a positive distinctiveness process that does not necessitate derogation of out-groups. Further, Brewer's model proposes that individuals may make the trade-off to abandon positive enhancement and social comparisons if given the opportunity to establish distinctiveness.

This logic is perfectly compatible with the leniency contract interpretation of the process of in-group minority influence (Crano, 2010c; Crano & Alvaro, 1998; Crano & Seyranian, 2008), which holds that majority members' concern with maintaining the cohesion and well-being of the group results in the majority's lenient treatment of the minority, and this leniency indirectly enhances the minority's chances for success (Crano & Chen, 1998). Paradoxically, perhaps, a positive value placed on group membership by majority group members, who require the continued integrity of the group, is necessary if the minority is to have a chance of influencing the majority. Of course, other conditions apply if the minority is to prevail. However, these arguments do not apply if the in-group minority's position threatens the group's integrity or its continued existence. In that circumstance, the majority is likely to circle the wagons and reject outside influences. However, short of threats to the continued existence of the group, the fundamental precondition for minority influence is that the targets of minority influence, the members of the majority, care about the continued survival of the group. If this condition is not met, then there is little to motivate the majority to bother with the plaints of the minority, and without a viable minority, the majority will stagnate.

MAJORITY AND MINORITY GROUP STATUS AND PERSUASION

Relevant to current concerns, a distinguishing feature of social psychology is its emphasis on social influence, which has been a major preoccupation of the field since its inception (Allport, 1935; Asch, 1952, 1955; Atuel, Seyranian, & Crano, 2007; Brewer & Crano, 1994; Crano, 2000; McGuire, 1969, 1986; Prislin & Crano, 2008; Sherif, 1948). In the persuasion literature, an important and relatively recent development is the study of the varying types of influence brought to bear by groups of majority and in-group or out-group minority status (De Vries, De Dreu, Gordijn, & Schuurman, 1996; Moscovici, 1985; Moscovici, Mucchi-Faina, & Maas, 1994; Nemeth, 1986; Prislin & Christensen, 2002; Prislin, Levine, & Christensen, 2006). According to most of the standard models of persuasion in decision-making interpersonal contexts, majority influence depends on threat and reconnaissance to induce compliance to group norms, although when under external threat, the majority's position is readily adopted by group members (Alvaro & Crano, 1997). (We distinguish these decision-making interpersonal contexts from those defined by minority–majority relations [e.g., ethnic relations,

international relations]—see Leonardelli and Pickett, this volume). As might be expected on the basis of earlier research (e.g., Hovland, Janis, & Kelley, 1953; Kelman, 1961), such changes are immediate but ephemeral and are easily undone. Peripheral changes of attitudes brought about by majority pressure are temporally unstable, susceptible to counterpressure, and unlikely to impel behavior (Crano & Prislin, 2008; Moscovici, 1985; Petty & Krosnick, 1995).

Minority influence, on the other hand, typically is delayed, but once it occurs, it is more likely to persist in the face of counterpressures and to guide future actions (Wood, Lundgren, Ouellette, Busceme, & Blackstone, 1994). An intriguing feature of minority influence is its capacity to induce immediate change on beliefs or attitudes that are related, but not identical, to the target of the minority's persuasive appeal; that is, beliefs never even addressed in the persuasive message appear susceptible to change pressure when addressed by a minority source. This indirect influence effect is a novel and reasonably consistent outcome of minority-sourced persuasive communications (Crano, 2010a, 2010b; Wood et al., 1994). It is a result that was not anticipated by the majority-centric approach of earlier research (see Moscovici, 1985; Prislin & Crano, 2008), which had not seriously considered the influence of minority groups. Exploring the boundaries of the minority influence phenomenon may tell us much about the cognitive processes that underlie the persuasion process. Not all is rosy, however.

As Wood et al. (1994) found in an early review of the minority influence literature, and as has been found in much of the research undertaken since then, minority groups usually have been defined in terms of simple numeric underrepresentation. This rule has been followed as well in much of the research on intergroup relations involving minorities and the majority (but see Gardikiotis, Martin, & Hewstone, 2005; Seyranian, Atuel, & Crano, 2008). As before, this general research approach follows from the early studies of the phenomenon. Many of Moscovici's minority influence studies, for example, made use of simple numeric differences to operationalize groups of majority or minority status (e.g., Moscovici & Lage, 1976), despite his more complete and comprehensive discussion of the features of the minority (Moscovici, 1976, 1985). A more complex conceptualization of the minority may help advance understanding, for as both commonsense and an analysis of laypersons' views of minority status suggest, the ecological validity of distinctions based solely on number may be considerably less than ideal (Seyranian et al., 2008). Some researchers (see Reicher, 2004; Sindic & Reicher, 2009) have moved beyond simple numeric conceptualizations of majority and minority status and should be emulated.

In addition to its contribution to understanding identity and inter-group relations, optimal distinctiveness theory has played an important role in social influence research. The capacity of the theory to bridge influence and intergroup relations lies in its central assumption that people hold concurrent and competing desires to be unique *and* to belong (Brewer, 1991). Distinctiveness has been recognized as fundamental if the minority is to exert influence (Campbell, Tesser, & Farley, 1986; Crano, 2001; Crano & Hannula-Bral, 1994; Moscovici, Lage, & Naffrechoux, 1969). At the same time, the minority must in some way make the case for inclusion in the in-group (Crano, 2010c). Both of these requirements for successful minority influence are consistent with the insights of optimal distinctiveness theory. Persuading the majority that the minority belongs to the larger group, a necessary requisite of successful minority influence, also satisfies inclusiveness motivations as in-group status implies some degree of identification with the majority. At the same time, differentiation needs are met by belonging to a distinct group that relative to the majority is perforce inferior numerically, or in terms of power or status, but likely more visible or salient and probably more cohesive as well. From a theoretical standpoint, then, establishing and maintaining an in-group minority identity, necessary requisites for the minority to prevail, may fulfill two critical optimal distinctiveness criteria as well.

Brewer, Manzi, and Shaw (1993) extended optimal distinctiveness theory to the minority context and found that their respondents preferred affiliation with a minority under conditions of high differentiation arousal. In later research, Leonardelli (1998) and Leonardelli and Brewer (2001) demonstrated that group members of minority status experienced greater satisfaction and higher self-esteem than those in the majority. In contrast to majority group members, individuals belonging to a distinct minority group expressed greater group identification and self-stereotyping (Brewer & Weber, 1994; see also Ellemers, Kortekaas, & Ouwerkerk, 1999; Leary & Baumeister, 2000; Major, Sciacchitano, & Crocker 1993; Simon & Hamilton, 1994).

These findings help clarify some apparently inconsistent results from the cross-cultural arena, though it must be admitted that cross-cultural minority influence research is limited (see Ng & Van Dyne, 2001). Obviously, belonging to a smaller, more socially distinct minority group does not always produce positive affect or acceptance on the part of the majority (Brewer & Weber, 1994). This is particularly so when the minority is of low status, heavily stigmatized, discriminated against, or otherwise socially disadvantaged (Crocker, Major, & Steele, 1998; Lücken & Simon, 2005; Meyer, 2003). Under such conditions, minority

status often is synonymous with inferiority, deviance, or weakness (DiPlacido, 1998; Sherif, 1966). How does this picture comport with our emphasis on the minority's successes? We have argued that minorities *can* affect majority beliefs and behaviors, but only when they are accepted as legitimate members of the larger group. Minorities attempt to move into this status for many reasons, such as to fulfill belongingness needs and to enable them to move the majority. Minorities that are of low status, heavily stigmatized, or socially disadvantaged are not likely to be accepted by the majority as in-group, irrespective of their desires for inclusion. When the minority is not accepted as legitimate or acceptable for inclusion, its power to influence is forfeit. Satisfying uniqueness needs may motivate individuals to distance themselves from the majority; however, unless the uniqueness is reigned in and the minority is accepted as a legitimate part of the majority, it is destined to remain out-group and thus surrenders its power to influence. This position is consistent with the in-group projection model of Wenzel et al. (2007), which holds that the superordinate group supplies the basis for comparing and differentiating in-group from out-group, or for integrating the (former) out-group into the in-group. Favorable (in-group) features are projected onto the superordinate group, and the minority will be valued to the extent that it possesses these features. As such, it is essential that minority group members, whether in-group or out-group, draw attention to their fit with features of the superordinate category and avoid comparisons involving the features that were responsible for their nonmajority status in the first place. Differences between out-group features and those projected onto the prototype (the superordinate group) are the bases for out-group rejection and discrimination.

TRANSITIONS

We know from history and considerable laboratory research that in-group minorities *can* prevail, sometimes even moving into positions of power in the majority. The transition from minority to majority group status has been modeled in a series of creative studies by Prislin and colleagues, and the results of this research are relevant to understanding intergroup relations. Given the chance, most prefer to belong to the majority, and there is more to it than merely acquiring power (Mackie, 1987; Mackie & Hunter, 1999). The majority enjoys the benefits of consensus. It usually is seen as correct. The majority controls resources—material and psychological. Who we are is largely defined by those with whom we are identified. Drawing distinctions between who's in and

who's out, between who's right and who's wrong, between privileged and disadvantaged—in short, between us and them—motivates us to be counted among those who count. We seek to belong to the majority of our group—even if our group is in the minority—not just because the majority holds the power, but because it is commonly viewed as deserving of its place at the head of the table. So it is not surprising that being part of the majority is sought after, so long as the possibility of retreating into smaller, more distinctive groups when the need arises is allowed. The gain–loss asymmetry model of Prislin, Limbert, and Bauer (2000) has provided interesting insights into the cognitive costs and benefits of these transitions. It happens that the negative reaction resulting from a shift from a majority position to the minority is generally greater than the reaction resulting from a change from minority to majority status—but perhaps only when the transition is not of one's own volition (i.e., majority status is lost owing to the actions of others and not of the actor's own volition). Moving from majority to minority status generates an extreme and immediate decline in positivity toward the new in-group, less positive group interaction expectations, and poorer perceptions of group-self similarity.

The change from minority to majority status is not associated with intense reactions of this nature (Prislin et al., 2000), and there is some indication that the negative transition is experienced as more intensely detrimental than is the positive transition from minority to majority status, as might be expected on the basis of Kahneman and Tversky's (1979) prospect theory. This suggests an asymmetrical outcome associated with changes in majority and minority status: "New minorities quickly develop resentment and new majorities are slow to overcome it" (Prislin et al., 2000, p. 395). However, as demonstrated in several studies (Prislin, Brewer, & Wilson, 2002; Prislin & Christensen, 2005; Prislin & Filson, 2009), minority influence can have a profound impact on attitudinal and evaluative perceptions of former majority group members who move into the minority. This change generates an opinion reorientation, creating identification with the (former) minority in-group's position rather than dissent and intolerance (Prislin et al., 2000, 2002). If, as Moscovici holds, all innovation springs from the actions of the minority, then those who can most effectively move the majority in a new direction may well be those who have transitioned from majority to minority and back to (in-group) majority status. At a minimum, the lessons these individuals learned while at the bottom of the barrel may inform the actions required to move the entire group forward.

CONCLUDING REMARKS

This chapter was written to illustrate some points of contact between two exciting features of social psychological research: intergroup relations and minority/majority group influence. These are areas of study in social psychology to which Marilynn Brewer has made major, exciting, and lasting contributions. Although some of her early research placed her in the social influence camp (e.g., see Brewer & Crano, 1968), her interests quickly migrated to the study of intergroup relations, which she has pursued with élan and great purpose over a long and brilliant career. Even so, the points of contact between her early flirtation with social influence and her one true (intellectual) love, intergroup relations, are available for all to see, and some of these intersections were described briefly here.

Our listing of these points of contact is far from complete, but it was never meant to be otherwise. Rather, the goal was to illustrate some places at which the two areas of concern intersect and to sketch some of the mutual gains that might be realized if these intersections were taken seriously and their implications developed. The interconnectedness of the two areas is sufficiently powerful that advances in one could have positive implications for development in the other. If this brief discussion contributes to this outcome, it will have fulfilled its purpose of honoring one of the true giants in our field while simultaneously extending her intellectual influence into arenas in which she might not otherwise have wished to play.

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12

INTRAGROUP RELATIONSHIPS AND INTERGROUP COMPARISONS AS TWO SOURCES OF GROUP-BASED COLLECTIVISM

Masaki Yuki

My personal understanding of social identity theory started with an episode that occurred in 1997, shortly after I joined Marilynn's lab as a self-funded postdoc. Fresh from Japan, the "kingdom of collectivism," I had arrived in Marilynn's lab with the hope that social identity theory (Tajfel & Turner, 1979), the *de facto standard* theory of group processes then, would be useful in understanding group behavior in my culture. However, applying social identity theory to the Japanese group behavior I was familiar with did not come as easily as I had first thought. Marilynn largely disagreed nearly every time we engaged in discussion to the point that we were, oftentimes, at a complete loss as to what the other was talking about. As someone who had extensively studied group processes, it was shocking to find out that I really did not have a full understanding of the theory in its entirety.

Luckily enough, an experience I had while living in Ohio triggered an understanding not only of social identity theory but also of why the concept seemed foreign to me. Anthony Hermann, my department buddy then, offered me a ticket to see a football match at the famous Ohio Stadium. It was a very chilly Saturday morning when I climbed the stairs to the spectators' bleachers, and *BOOM!* There was social identity theory. All around me, people wore apparel with the same color and logo (intragroup similarity), standing in sharp contrast with that

of the out-group (Northwestern) in purple (intergroup differentiation). The spectators shouted battle cries for their team to defeat the other (in-group favoritism), and as a whole, moving and shouting in unison, they collectively resembled a giant monster with its own identity (group entitativity). I realized that *this* was the social identity process I had been taught about. More importantly, I realized that this process was vastly different from the characteristics of "collectivism" that I had studied and observed in East Asia, which were primarily about *interpersonal relationships within in-groups*. As luck would have it, the distinction between intragroup and intergroup collectivism corresponded well with the distinction between relational and collective modes of social selves that Marilynn and Wendi Gardner had recently proposed (Brewer & Gardner, 1996).

In this chapter, I describe the qualitative differences in predominant group processes between North American and East Asian cultural contexts. First, I briefly review theory and research on individualism and collectivism, which proposed a simple distinction between cultures characterized by independence and autonomy versus interdependence and group centeredness, and the "crisis" that the theory has faced. Second, I describe my attempt to tackle this problem through a new theory on the qualitative differences in the types of group processes common in North America and East Asia: intergroup comparison orientation versus intragroup relationship orientation. After reviewing empirical evidence in support of my theory, I finally present some relatively new data that suggest that these different kinds of collectivism may emerge under different kinds of socioecological contexts, such as through variations in the degree of *relational mobility* (Yuki et al., 2007).

Individualism and Collectivism

Theorists in cross-cultural psychology have identified a number of dimensions along which the many cultures of the world might be distinguished (e.g., Chinese Culture Connection, 1987; Hofstede, 1980; Schwartz, 1994). Among these differences, the dimension that has received the greatest amount of attention by far is the distinction between individualism and collectivism (Triandis, 1995). While both collectivism and individualism are multidimensional constructs, theorists largely agree that the principal distinction between the two resides in differences in the degree of in-group identity and loyalty (Triandis, Bontempo, Villareal, Asai, & Lucca, 1988; Yamaguchi, 1994). The core theme of individualism is the conception of individuals as autonomous beings who are separate from groups, while the central theme of collectivism is the conception of individuals as parts of groups or collectives.

Individualists are purported to show less in-group loyalty, giving priority to personal goals over the goals of collectives. In contrast, collectivists either make no distinction between personal and collective goals or, if they do so, they subordinate their personal goals to collective goals.

At the extreme ends of the poles representing individualism and collectivism, North America (such as the United States and Canada) and East Asia (such as Japan, China, and Korea) have been treated, respectively, as prototypic representatives of individualistic and collectivist cultures. As such, most empirical investigations into these constructs have compared samples from these two geographical areas. Numerous attempts have been made to uncover psychological and behavioral differences in phenomena such as self-concepts, emotions, social judgment, communication styles, sense of justice, and so on, and these differences have frequently been interpreted as manifestations of the varying levels of individualism and collectivism between North American and East Asian societies (Fiske, Kitayama, Markus, & Nisbett, 1998; Kim, Triandis, Kagitcibasi, Choi, & Yoon, 1994; Smith & Bond, 1998).

However, after rigorous investigation conducted over 20 years, a stunning fact was uncovered: North Americans are actually no less collectivistic than are East Asians. One groundbreaking meta-analytic paper by Oyserman, Coon, and Kemmelmeier (2002) showed that the majority of research indicated that collectivism among North Americans was actually *higher* than that of Japanese, while no difference was found between Americans and Koreans, and American collectivism was sometimes higher than Chinese collectivism, depending on the scale content used in the studies.

There have been various reactions to these striking findings. Some scholars concluded that cross-cultural differences in collectivism between North Americans and East Asians did not exist, or, at least, were not empirically warranted (Matsumoto, 1999; Takano & Osaka, 1999). Other researchers who were in favor of the theory maintained that the reviewed findings were not reliable since they primarily relied on Likert scales. These researchers argued that because Likert scales are vulnerable to various biases such as differences in response sets (Chen, Lee, & Stevenson, 1995) and the reference group used when making judgments (Heine, Lehman, Peng, & Greenholtz, 2002), the results from these studies could not be trusted.

There is, nonetheless, another possibility that was completely overlooked: it is possible that although all humans, as a social species, create and utilize social groups, the kind of groups they identify themselves with and their motivations in these groups may vary, depending on the culture in which they reside. In other words, there can be multiple *kinds*

of collectivism, in which group identification and behaviors differ *qualitatively* rather than *quantitatively* between cultures. In the following section, I briefly describe my classification of two kinds of collectivism, or *group orientation* (using a more politically neutral term), predominant in North American and East Asian cultures (Yuki, 2003; see also, Brewer & Yuki, 2007).

Social Identity Theory and the North American Intergroup Comparison Orientation

In Western social psychology, social identity theory, along with self-categorization theory, has been accepted as the single comprehensive theory of group behavior and cognitive processes underlying an array of intergroup and group phenomena (Tajfel & Turner, 1979; Turner, Hogg, Oakes, Reicher, & Wetherell, 1987). The basic tenet of these theories is that group behaviors derive from cognitive representations of the self in terms of its membership in a shared social category in which there is effectively no psychological separation between the self and the group as a whole. This phenomenon is known as the *depersonalization of self-representation*. When social identity is made salient, individuals "come to perceive themselves more as the interchangeable exemplars of a social category than as unique personalities defined by their individual differences from others" (Turner et al., 1987, p. 50). Thus, the cognitive representation of the self shifts from the personal self to the collective self (Hogg and Abrams, 1988).

This form of depersonalization occurs in a comparative context between in-groups and out-groups. That is, the categorization of the self as a group member is more likely to occur insofar as the perceived differences between in-group members are less than the perceived differences between in-group and out-group members. Accordingly, social identity theory posits that in-groups cannot be defined in isolation from out-groups, but rather that they gain their definition from comparisons and contrasts to out-groups. Because the self is defined at the level of the in-group, value is derived from maximizing positive distinctiveness between in-groups and out-groups. Thus, intergroup status differentials and one's group having higher status are critical.

In this comparative context, features shared by in-group members that distinguish them from out-group members give rise to a group "prototype." Perceptions of the self and other in-group members are then assimilated to this in-group prototype. In-group members are perceived as more similar to one another, and the in-group as a whole is perceived to be more homogeneous (Hogg & Turner, 1987). Some recent developments of social identity theory have focused on group member differences

in prototypicality, with relative prototypicality being associated with differential influence and marginalization within the group (Hogg, 2001). Nevertheless, social identity implies a depersonalized perception of the in-group, by viewing group members either as interchangeable or as differing in terms of their prototype-based position in the group.

In a similar manner, cultural psychologists used social identity theory to interpret behaviors among people in collectivist societies. Triandis, McCusker, and Hui (1990), for instance, maintained that the self in collectivist cultures is construed as an "appendage of the in-group" (p. 1008) and, based on this understanding, predicted that perceived in-group homogeneity would be higher in collectivist cultures than in individualistic cultures. These applications, however, may overlook some critical differences between social identity theory and the pattern of collectivism, especially in East Asia.

EAST ASIAN COLLECTIVISM AS INTRAGROUP RELATIONSHIP ORIENTATION

Parallel to the constructs of individualism and collectivism, social identity theory is often thought of as a continuum with personal (individuated) identity on one end, and social (collective) identity at the other. The shift between personal and social identities is presumed to lay in universal cognitive processes associated with social categorization and category salience. Against this view of a single continuum, however, Brewer and Gardner (1996) suggested that there may be three qualitatively different views of the "social self": individual, relational, and collective, each being a distinct self-representation with different structural properties, basis for self-evaluation, and motivational concerns (see also Chen, Zhao, & Lee, this volume; Gabriel & Gardner, 1999; Kashima & Hardie, 2000). The individual self is the representation of self as a unique person, differentiated from other individuals, while the relational self is defined in terms of connections and role relationships with significant others (Cross & Madson, 1997; Gilligan, 1982). The relational self is personalized and incorporates dyadic relationships between the self, specific close others, and networks of such interpersonal connections. On the contrary, the collective self is consistent with the social identity of self-categorization theory (SCT), defined in terms of prototypical properties shared among members of a common in-group (Brewer, 1991; Turner et al., 1987). It consists of depersonalized connections with others by virtue of common membership in a symbolic group. Unlike relational identities, collective identities do not require interpersonal relationship knowledge or coordination but instead rely on shared symbols and cognitive representations of the group as a unit.

Drawing on Brewer and Gardener's (1996) distinction between relational and collective social selves, I have proposed that the predominant characteristics of group cognition and behavior may differ across cultural contexts (Yuki, 2003). According to this framework, processes consistent with social identity theory and self-categorization theory are most applicable to Western intergroup situations emphasizing categorical and in-group–out-group distinctions. In contrast, East Asian groups may be a predominantly intragroup and relationship-based phenomenon, with its collectivism largely promoting cooperation and relational harmony maintenance with specific in-group others.

Relational Self-Representation Rather Than Collective Self

The term *collectivism* has been sometimes used interchangeably with Brewer and Gardner's collective self (1996) and others. However, if one investigates literature with more sociological, anthropological, and indigenous psychological perspectives, the East Asian self appears to specifically emphasize its relational aspect (e.g., Choi, Kim, & Choi, 1993; Hamaguchi, 1977; Lebra, 1976), the most well-known example being the interdependent self proposed by Markus and Kitayama (1991). According to their view, Asian cultures "are organized according to meanings and practices that promote the fundamental connectedness among individuals within a significant relationship (e.g., family, workplace, and classroom)" (Kitayama et al., p. 1247). Furthermore, "the self is made meaningful primarily in reference to those social relations of which the self is a participating part" (p. 1247). As implicated in the Confucian paradigm, individuals see themselves situated symbolically in the web of a relational network through which they define themselves (King & Bond, 1985).

Although this idea is often misunderstood, maintaining an "interdependent" self is different not only from the self represented at the category level (Turner et al., 1987), but also from the self extended to include significant others (Aron, Aron, Tudor, & Nelson, 1991). People with an interdependent self believe that individuals are mutually distinct. They are, nonetheless, understood as connected with each other via stable and visible relationships (Hamaguchi, 1977; Ho & Chiu, 1994). It is known that East Asians are particularly concerned with maintaining intragroup cooperation and harmony, and try to inhibit potential conflict among the members (e.g., Ho & Chiu 1994; Kwan, Bond, & Singelis, 1997; Leung & Bond, 1984; Smith & Bond, 1998; Yamagishi, Jin, & Miller, 1998). This would not be necessary if their selves were merged with each other.

In-Group Representation as a Network Rather Than as a Depersonalized Entity

While relational self is prevalent among East Asians, they do not downplay the in-group as a meaningful social unit. As predicted by social identity theory, East Asians strongly impose boundaries between in-groups and out-groups (Gudykunst, 1988). But instead of depersonalized entities, they perceive their in-groups as complex networks of interrelated individual members (Choi et al., 1993; Hamaguchi, 1977; Ho, 1993; Lebra, 1976; Nakane, 1970). In other words, a distinction is made between those who are and who are not personally related.

The different conceptualizations of in-groups by Westerners and East Asians correspond to two different modes of group entitativity. The term *entitativity* denotes the degree to which a social collective is viewed as an entity unto itself (Campbell, 1958). The depersonalized and intergroup view of in-group, proposed to be predominant among Westerners, should correspond to similarity-based or homogeneity-based entitativity (Brewer & Harasty, 1996). On the contrary, the network and interpersonal view of in-group, which I propose to be prevalent among East Asians, should correspond to the organizational and structural view of group entitativity (Hamilton, Sherman, & Lickel, 1998; see also Prentice, Miller, & Lightdale, 1994, for a similar distinction between common-identity and common-bond groups).

If East Asian collectivists conceive of groups as webs of social networks rather than as depersonalized entities, then they should be concerned about maintaining a high level of knowledge about the in-group's complex relational structure, both horizontally and vertically, and about locating themselves at some specific point within this structure. For instance, it is pointed out that East Asians are particularly attentive to prescribed status differences between in-group members (Nakane, 1970). To act appropriately, individuals should begin social interactions by assessing the role relationship between oneself and others (Hwang, 1999).

Summary

The key argument proposed here is that an alternative model is required to describe East Asian collectivism—a model that incorporates a set of cognitive representations of self and in-group that are not depicted by social identity theory. In sum, social identity theory, which focuses primarily on intergroup relations, depicts groups as entities consisting of members whose identities are perceptually undifferentiated and interchangeable, or defined in terms of their relative typicality. In contrast, East Asians' group behaviors derive from an *intra*group focus.

The in-group is a structured network of personalized but interconnected individuals whose exact location within the network is clear.

In the next section, I review some empirical evidence for this theory, provided by my colleagues and myself, as well as by others.

EMPIRICAL EVIDENCE

In-Group Identities

The most direct method to investigate different cultures' social identities is to assess their spontaneous self-descriptions. It is commonly assumed that self-concepts of people in individualist cultures primarily possess idiocentric traits and attributes, whereas collectivists' self-concepts incorporate more social references, including allocentric, relational constructs and group memberships (Triandis, 1989). But empirical data have provided mixed support for this claim: while some studies showed that collectivists generate a larger proportion of social identity references (e.g., Ross, Xun, & Wilson, 2002; Triandis et al., 1990), other studies found that U.S. respondents use an equal, or sometimes greater, proportion of social descriptors than respondents from Japan, China, or Korea (e.g., Bond & Cheung, 1983; Rhee, Uleman, Lee, & Roman, 1995).

Incorporating the distinction between relationship- and category-based social identities can help make sense of some otherwise anomalous findings in the literature. When looking closely at spontaneously generated social identity descriptions in different cultures, a distinct pattern emerges: while collectivist participants in collectivist cultures generally refer more to social relationships and role identities, those in individualistic cultures are more likely to refer to social group or social category memberships (e.g., Watkins et al., 1998; see also, Brewer & Chen, 2007, for a consistent conclusion).

In order to more directly test for cultural differences in the meaning of social identities that implicate the *in-group*, I compared the strength of predictors of in-group identity and loyalty in Japan and the United States (Yuki, 2003). In this study, I asked American and Japanese university students to report their perceptions of two kinds of in-groups differing in size—their nation and a small social group to which they belonged (such as a student club or activity group). The results showed that, for Japanese, in-group identification and loyalty were solely determined by relational factors, such as the sense of interconnectedness between the self and other group members, and the knowledge about individual differences and relationships among group members. For Americans, however, identity and loyalty were associated not only with

relational but also with categorical factors, such as perceptions of homogeneity within the group and status of their group relative to out-groups.

Spontaneous Memory of Group Information

The above studies yielded results consistent with the idea that motivations underlying group orientations differ between East Asians and North Americans. However, these conclusions are weakened by a reliance on Likert scales, which can make cross-cultural comparisons problematic. It is thus crucial to examine the hypothesized cultural differences through other methods, such as by assessing *online* responses, or mental responses spontaneously produced as people behave in actual social settings (Kitayama, 2002).

My colleagues and I recently assessed North Americans' and East Asians' spontaneous attention to intergroup status differences and intragroup relationships (Takemura, Yuki, & Ohtsubo, 2010). As predicted, the results of an experiment showed that compared with Japanese participants, memory performance among U.S. participants was biased toward intergroup status difference information over intragroup relationship information. Americans, who are more likely to hold a collective and depersonalized conceptualization of the self within the in-group context, are more receptive to information pertaining to status differences between groups than are Japanese, whose relational social identity is more focused on the connections of distinct individuals within the group.

Intragroup Behaviors: Trust

Trust is the expectation of benevolent treatment from others in uncertain or risky situations. It is typically called for in situations where another person has the potential to gain at one's expense but can choose *not* to do so (Foddy, Platow, & Yamagishi, 2009). Although it is generally difficult to establish trust in a person whom one does not know personally, such impersonal trust is essential for the creation and maintenance of many forms of economic exchange, organizations, and social and political institutions (e.g., Kramer, 1999; Ostrom, 1998; Yamagishi & Yamagishi, 1994). One solution to this problem is to rely on social distance: "trust neighbors, but not outsiders" (Macy & Skvoretz, 1998, p. 651). In contrast to the popular view, evidence suggests that this in-group bias in trust is actually larger for people from individualist cultures than for those from collectivist cultures, where in-group–out-group distinction is made on a categorical basis (Buchan, Croson, & Dawes, 2002; Buchan, Johnson, & Croson, 2006; Yamagishi, Makimura, Foddy, Matsuda, Kiyonari, & Platow, 2005).

This mystery can be solved if one thinks about two distinct bases for trust in a stranger. First, shared category membership (a common in-group) can be a basis for *depersonalized* trust (Brewer, 1981). When a shared social categorization is made salient, individuals, in line with social identity theory, are more likely to trust such category in-group members to allocate resources fairly than selfishly (Foddy et al., 2009), to cooperate in order to conserve resources of the in-group (e.g., Brewer & Kramer, 1986), and to contribute to the public good without knowing whether other in-group members are also contributing their shares (Wit & Kerr, 2002). Second, individuals can trust others if they know (or believe) that they are directly or indirectly connected to each other through mutual friendships or acquaintances (Coleman, 1990). A shared network of interpersonal relationships provides a mechanism for extending *personalized* trust to unknown others who are part of the social network. If we incorporate the above discussion on the qualitative differences in group processes across cultures, it is possible that the former, the category-based version of trust, may be more predominant in the West, whereas the latter, the interpersonal-connection-based version, may be more predominant in East Asia.

My colleagues and I conducted a couple of experimental studies to test this idea, and obtained support (Yuki, Maddux, Brewer, & Takemura, 2005). Across both studies, Americans tended to trust strangers who shared the same categorical memberships more than those who did not, while the presence of an acquaintance in the target persons' groups, or the estimated likelihood of a mutual acquaintance, had no effect on levels of trust. In contrast, for Japanese participants, trust depended more on the likelihood that targets shared direct or indirect relationship links. In particular, the presence of a potential cross-group relationship had a strong effect on out-group trust for Japanese. This evidence led us to conclude that, in line with the present theory, in contrast to a mechanism of trust and cooperation based on depersonalized shared group memberships in the West, East Asian trust is dependent on interpersonal connections and reciprocal obligations.

Intergroup Discrimination

Discrimination, or the preferential treatment of in-group over out-groups, is ubiquitous (Sumner, 1906). However, the specific targets of and reasons for discrimination may vary greatly between cultures. Evidence shows that, in minimal group settings where participants are divided into different groups based on arbitrary criteria, such as perceptual tendencies or preferences for abstract paintings, Westerners more readily engage in discriminative behaviors than people in other parts

of the world (e.g., Buchan, Croson, & Johnson, 2003; Wetherell, 1982). Moreover, Western participants are found to discriminate against out-groups even when, in minimal group experiments, the chance of one's in-group favoritism being reciprocated by other group members is explicitly eliminated (e.g., Perreault & Bourhis, 1998; Platow, McClintock, & Liebrand, 1990). According to social identity theory, such in-group favoritism is based on the motivation for positive intergroup distinctiveness, by benefitting the in-group as a whole. On the contrary, studies have shown that Japanese stop favoring in-group over out-group members when reciprocal interdependence with in-group members has been eliminated (Jin, Yamagishi, & Kiyonari, 1996; Karp, Jin, Yamagishi, & Shinotsuka, 1993). In contrast to the principle of positive intergroup distinctiveness governing intergroup behaviors, East Asian intergroup behavior can be understood as a strategy that maximize one's own personal interest by maintaining mutually beneficial relationships with fellow in-group members (Yamagishi, Jin, & Kiyonari, 1999).

SOCIOECOLOGICAL FOUNDATIONS OF INTERGROUP AND INTRAGROUP ORIENTATIONS

Overall, the above evidence supports my original claim that the *kinds*, not the *levels*, of collectivism are different between North America and East Asia. More specifically, North Americans tend to define groups in terms of shared features among group members, to have a depersonalized view of the self as a prototypical exemplar of the in-group, and to be motivated to gain higher intergroup status. On the contrary, East Asians conceptualize groups in terms of shared interpersonal networks among group members, perceive the self as a distinctive but constitutive part of the network, and are motivated to maintain harmonious and reciprocal relationships between the members (Yuki, 2003). There is, however, one remaining issue that is yet to be answered. From where do these differences in group processes originate? In this final section, I attempt to answer this question from the newly arisen *socioecological perspective* (e.g., Nisbett & Cohen, 1996; Oishi & Graham, 2010; Yuki et al., 2007).

The main goal of the socioecological perspective is to delineate how the mind and behavior of individuals are related to the natural and social habitats that surround them, such as economic, political, educational, societal, and organizational reward systems, as well as more intermediate structures such as the characteristics of cities, towns and neighborhoods, housing, and family and kin relationships. Although

this approach may sound akin to that of ecological biologists who primarily study animals' behaviors in relation to their natural habitats, the important distinction is that it also deals with the recursive process in which the human mind and behavior affect and create social habitats (see Oishi & Graham, 2010, for an extensive review of this approach).

One socioecological factor that has recently received extensive focus is the level of interpersonal or intergroup *mobility* (e.g., Adams, Anderson, & Adonu, 2004; Oishi, Lun, & Sherman, 2007; Yamagishi & Yamagishi, 1994; Yuki et al., 2007). *Relational mobility*, defined as the amount of opportunities people in a given society or social context have to select interactional partners or groups when necessary (Yuki et al., 2007), as well as other factors that may be closely tied to relational mobility, has proven useful in explaining various North American and East Asian differences, such as those in the level of trust in strangers (Yamagishi & Yamagishi, 1994), determinants of subjective well-being (Sato, Yuki, Takemura, Schug, & Oishi, 2008), self-enhancement (Falk, Heine, Takemura, & Yuki, 2009), pursuit of uniqueness (Yamagishi, Hashimoto, & Schug, 2008), and self-disclosure (Schug, Yuki, & Maddux, 2010).

Different levels of relational mobility also may bring about differences in group processes. In societies low in relational mobility, group membership is generally ascribed and predetermined. People cannot escape from their groups even if they find that their own attitudes, goals, and so on are not fully compatible with those of their fellow group members. It is, thus, critically important to maintain good relationships with one's in-group members, by recognizing and accommodating individual differences in attitudes, goals, and so on within the group (Adams et al., 2004). Moreover, to be successful, one must also navigate friction between other in-group members, requiring great attention to the in-group's complex relational networks.

By contrast, individuals in high relational mobility societies can more freely choose in-groups, and to the extent that this is true, they should attempt to find and join groups that have higher rather than lower status, because the membership in the former will generally provide them with larger resources. Thus, people should constantly monitor intergroup status differences and attempt to associate with groups of higher status. Consistent with this idea, people in more residentially mobile societies, as well as individuals with larger personal residential mobility, generally change their in-group identity more opportunistically, depending on the success or failure of the in-group and its members, than those who are in less residentially mobile societies and those who move less (Oishi, Ishii, & Lun, 2009).

Additionally, in societies high in relational mobility, individuals are able to form groups around similarities and common interests, which facilitate coordinated action and collective goal pursuit. Consistent with this, my colleagues and I have data suggesting that the reason why friends in the United States are more similar with each other than those in Japan is because of higher relational mobility in the former society. Although the preference for similar to dissimilar other is common to both countries, the opportunities to find and make friends with similar others are fewer in Japan, a society low in relational mobility (Schug, Yuki, Horikawa, & Takemura, 2009).

While it seems that, as above, relational mobility is useful in explaining the origins of cross-cultural differences in group processes, there are some further remaining issues surrounding the concept. First, what is the relationship between the levels of relational mobility, and the types of social selves, such as the relational and collective self? The picture seems complicated because there is considerable confusion regarding the definition of social selves in the literature. Take, for example, the relational self. As discussed earlier, there are at least two distinct types of relational self. One type is that in which one's self "overlaps" with that of another person, characterized by terms such as "union" and "attachment" (e.g., Aron et al., 1991). Another type, as represented in our intragroup relationship model, represents the self as connected with others in a tight and ascribed social network. Existing literature suggests that the former type of relational self might be more prevalent in societies that are found to be high in relational mobility. For instance, findings indicate that felt closeness between friends is higher for North Americans than for people in other parts of the world, such as West Africa (Adams et al., 2004) and East Asia (Schug et al., 2010). The latter type, however, is likely more prevalent in societies low in relational mobility, where the connections between individuals are stable, solid, and readily apparent.

Second, and as a more fundamental question, why are there differences in relational mobility between societies? While it is certainly impossible to single out one specific historical factor that is solely responsible for what is today, previous work in institutional economics suggests one possible contributing factor. Work by Greif (2006), a historical institutional economist, suggests that systems that societies use to reduce uncertainty in exchange relationships can have a profound impact on the ability for individuals to form new exchange relationships. His research examined two groups of medieval traders, the Maghribi and the Genoese. Both groups faced the same basic problem of dealing with uncertainty in economic exchanges, but they took completely different

approaches to address the problem. The Maghribi formed a closed system of trading, where one could only trade with other members of the same closed society. By taking this "collectivistic" solution, they could be assured that no one would behave in an untrustworthy manner as those who did so would be promptly excluded from the closed network. The Genoese traders, on the other hand, approached this problem by investing in a centralized legal system that relied on third parties such as courts for contract enforcement, enabling those who broke contract to be subject to litigation. Such centralized legal systems, such as police and courts of law, greatly reduce the costs associated with seeking out new exchange relationships and likely lead to the increase in mobility of trading relationships in many Western societies (Greif, 2006). It is possible that implementation of such a system made it possible for North American societies to prosper by enabling immigrants from various countries around the world and who were otherwise strangers to communicate and interact with each other with reduced social uncertainty.

In any case, the socioecological approach provides an explanation for why individualism in North America is associated with depersonalized, symbolic collective identities by suggesting ways in which ecological factors (e.g., the ability to choose in-groups with high status or similar characteristics) might bring about the psychological tendencies and behavioral consequences described by social identity theory, such as intergroup comparison and intragroup similarity. It is expected that an application of the socioecological perspective will enrich our understanding of the more fundamental causation underlying different patterns of group behaviors and thus make it a genuinely *social* psychology of group processes.

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III

Applications and Implications

13

HOW LEADERS TRANSFORM FOLLOWERS

Organizational Identity as a Mediator of Follower Attitudes in Three Service Organizations

Sherry K. Schneider, Winette M. George,
Sean Carroll, and Eric Middleton

Since Marilynn Brewer's seminal experimental work on social identity in social dilemmas (Brewer & Kramer, 1986; Kramer & Brewer, 1984), social identity theorists have hypothesized that individuals make difficult decisions on behalf of the group dependent on the salience of group membership in the situation (Brewer & Schneider, 1990, 1999).

Since then, social identity theory (SIT; Tajfel, 1978; Tajfel & Turner, 1986) has been exported from the lab to organizational settings with great success (e.g., Haslam, Powell, & Turner, 2000; van Knippenberg, 2000). A search of APA Psynet from 1984 to March 2010 produced 225 papers with the search term "organizational identity" and 529 more using SIT and "organization" in the subject search line. Tajfel's (1978) original conception of social identity included both cognitive and emotional aspects. Working from Tajfel's (1978) definition, Ellemers, Kortekaas, and Ouwerkerk (1999) identified three separate components of social identity: (1) a derivation of self-concept, in part, from the groups to which one belongs (social categorization), (2) an emotional attachment to one's group (affective commitment), and (3) an evaluative component in which one favors one's own group over others (group self-esteem). Ellemers et al. found that questions measuring all three aspects of social identity could be combined to form a reliable whole.

Yet, these three components were identified as separate dimensions in a principal components analysis (PCA). They were also differentially affected by group characteristics such as size and status. Ultimately, only group commitment mediated the effects of group characteristics on in-group favoritism.

It is now accepted that the way in which individuals define themselves in terms of their relationships to organizations has implications for organizational outcomes (Ashforth & Mael, 1989; Harris & Cameron, 2005; Haslam & Platow, 2001; van Knippenberg, 2000; van Knippenberg & van Schie, 2000; van Knippenberg, van Knippenberg, De Cremer, & Hogg, 2004, 2005). It is clear that organizational identity had "positive and sustainable" effects (Haslam et al., 2000, p. 319) such as enhanced organizational commitment (van Knippenberg & Sleebos, 2006), work performance (van Knippenberg, 2000), and reduced turnover intentions (Abrams, Ando, & Hinkle, 1998).

According to van Knippenberg (2000), when the groups' interests are aimed at work performance, identification with that group will motivate the individuals toward higher work performance. Van Knippenberg differentiates between task performance and contextual performance. Task performance involves role requirements, and contextual performance refers to such extra-role activities that may benefit the performance of the work unit as a whole, such as those consistent with organizational citizenship behavior (OCB). OCB is an extra-role behavior that benefits the organization but is not required for the job (Bateman & Organ, 1983). The effects of social identity are more likely to be apparent on contextual performance rather than task performance (van Knippenberg, 2000), indicating a potential relationship between social identity and individuals' OCB (e.g., Christ, van Dick, Wagner, & Stellmacher, 2003).

In the last few years, research on SIT in organizations has become more process oriented (e.g., van Knippenberg et al., 2005). SIT researchers hypothesize that social identity may mediate the relationship between leadership and positive organizational behavior outcomes (Haslam & Platow, 2001; Hogg & van Knippenberg, 2003; van Knippenberg et al., 2005; van Knippenberg et al., 2004). Van Knippenberg's (2000) "social identity model of work motivation and performance" (p. 362) posits that social identity salience motivates behavior on behalf of the collective because employees embrace collective goals and interests as their own. In an experimental study of cooperation in social dilemmas in keeping with the work by Brewer and Kramer (1984) and Kramer and Brewer (1986), de Cremer, van Knippenberg, van Dijk, and van Leeuwen (2008) showed limited support for this hypothesis.

Congruent with van Knippenberg's (2000) model, transformational leaders are also thought to motivate by "transforming" employees' goals to those of the organization (Berson & Avolio, 2004). Yet, there is little empirical research that suggests that the effects of transformational leadership on followers are mediated by social identity. A practical and theoretical question then becomes, do transformational leaders positively affect followers' outcomes such as increased satisfaction, commitment, and OCB by encouraging them to identify with the organization?

In this chapter, we share two small field studies that suggest that the effects of transformational leadership are mediated, at least partially, by organizational identity. First, we discuss the relevant organizational identity and transformational leadership literatures in more detail. Second, we discuss studies of voluntary service club presidents (e.g., Lions Club, Rotary International) and grocery store and fast-food managers, both of which support the mediation model (Figure 13.1).
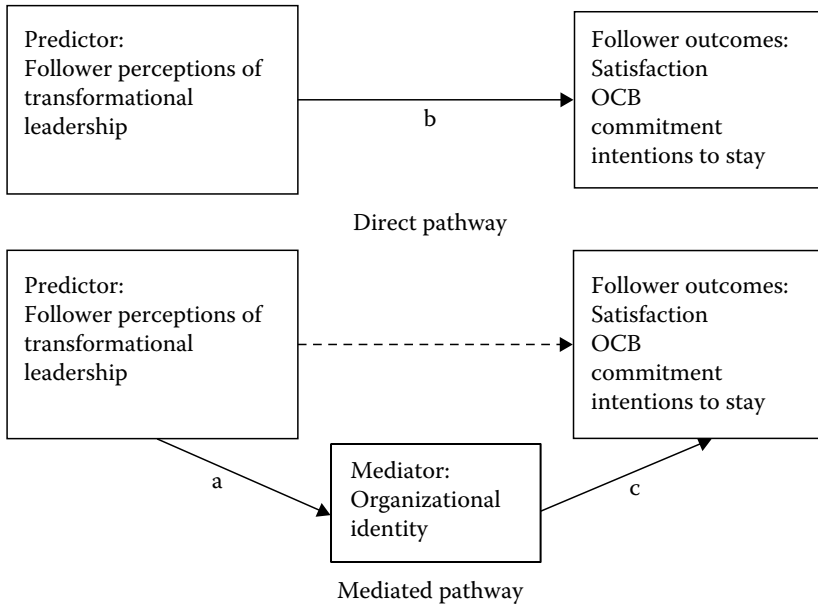
Figure 13.1 General mediation model for Studies 1 and 2. Path (a) predictor-mediator; path (b) predictor-outcome; path (c) mediator-outcome. The effects of perceived transformational leadership on follower perceptions as mediated by organizational identity. (Based on Baron, R. M., & Kenny, D. A. (1986). *Journal of Personality and Social Psychology, 51*, 1173–1182.)

ORGANIZATIONAL IDENTITY

There are two literatures that have evolved separately that imply that organizational identity should mediate the effects of leadership behavior on followers. Some theorists (e.g., Haslam & Platow, 2001; Hogg & van Knippenberg, 2003; van Knippenberg et al., 2004, 2005) approach leadership from a traditional SIT perspective: they believe that group membership shapes one's perceptions of self and others' beliefs, attitudes, and behaviors (van Knippenberg & Hogg, 2004). According to Hogg and van Knippenberg, people are more likely to be influenced by prototypical group members than nonprototypical members. A prototypical group member embodies the characteristics that members believe to be important to group membership. Leader effectiveness is linked to how strongly the followers identify with the group and how well the leader fits the group characteristics (van Knippenberg & Hogg, 2004). Followers who strongly identify with the group will also accept the organization's attitudes, values, and goals as their own (de Cremer et al., 2008) and then act accordingly by engaging in behaviors that are in the best interests of the organization (e.g., organizational citizenship, productivity).

Social cognitive psychologists such as Lord (e.g., Lord, Brown, & Freiberg, 1999) studied the mediating effects of identity from a different perspective (cf. leadership categorization theory; Lord, Foti, & De Vader, 1984). Lord et al. first studied the cognitive content of the leadership prototype and its subsequent effects on followers' behavior. In general, people have preconceived prototypes of how leaders should behave in various situations (e.g., honest and trustworthy). These prototypes are activated in followers when a person is categorized as a leader, thus generating expectations about the leader's attributes and behaviors (Hogg & van Knippenberg, 2003). Followers then perceive a person who fits the leader prototype as an effective leader (Haslam, 2004). Lord et al. (1999) contend that the follower prototypes of leaders affect perceptions of leader behavior that subsequently influence how effective a leader may become. In these terms, leadership is interpreted as a product of individual cognitive processes rather than a psychological process of group membership (Hogg & van Knippenberg). Although the study of the impact of organizational identity on leader effectiveness (Hogg & van Knippenberg, 2003; van Knippenberg, 2000; van Knippenberg et al., 2004, 2005) and the cognitive impact of leadership prototype on self-concept (Lord & Brown, 2001; Lord et al., 1999) have evolved as two separate literatures, the findings of these studies are surprisingly congruent. Leadership influence may be dependent on the ability to influence subordinate identity (Lord & Brown).

Lord et al. report that subordinate identity (as a component of self-concept) affects many psychological processes and is susceptible to leader influence (Lord & Brown, 2001; Lord et al., 1999). Researchers put forward identity as a mediator that links exogenous processes such as leadership with internal subordinate processes, which, in turn, influence subordinate behavior (Lord & Brown, p. 134).

SIT researchers such as Hogg and van Knippenberg (2003) imply that leader behaviors are able to influence follower social identity, thus affecting follower attitudes and behaviors. They suggest that followers are more likely to follow leaders who best represent the group as a whole (i.e., the prototypical group member).

Furthermore, social identification with the organization is found to result in the same positive organizational behaviors that are typically seen as outcomes, such as increased OCB, of effective leadership (e.g., Christ et al., 2003; Haslam, 2004; van Knippenberg, 2000). Both SIT and social cognitive theorists (Lord & Brown, 2001) believe that leadership effectiveness increases when leaders are able to build subordinate identification with the organization. Thus, van Knippenberg et al. (2004) proposed a need for research that explores identity as a mediator in the leader–follower relationship.

TRANSFORMATIONAL LEADERSHIP

Transformational leadership is the ability to motivate and encourage intellectual stimulation through inspiration (Avolio, Zhu, Koh, & Bhatia, 2004; Dvir, Eden, Avolio, & Shamir, 2002). According to Bass and Avolio (1997), transformational leaders appeal to higher ideals and values that inspire followers to go beyond expectations (Burns, 1978). Transactional leaders, on the other hand, lead by exchange; the resources of the leader are exchanged for effort, assistance, and successful performance of employees (Bass & Avolio, 1997).

Rafferty and Griffin (2004) view *vision* as the main characteristic of transformational leaders. Vision and inspiration activate a transformation process within the follower (Scandura & Williams, 2004). That is, a relationship or sense of identification with the leader develops which results in acceptance of the leader's vision and values, and goal achievement becomes the norm (Gillespie & Mann, 2004). Transformational leaders inspire followers to exert effort beyond self-interest in favor of collective group accomplishment (Berson & Avolio, 2004).

A large body of research on transformational leadership has documented its positive association with commitment (Avolio et al., 2004;

Jung & Sosik, 2002; McColl-Kennedy & Anderson, 2005). Like social identity, numerous empirical studies have found that transformational leadership is positively related to indicators of leadership effectiveness such as follower commitment, satisfaction, motivation, and extra effort across a number of settings (Bass, 1985; Avolio & Bass, 1995; Hinken & Tracey, 1994; Pillai & Williams, 2004; Podsakoff, Mackenzie, & Bommer, 1996). Head nurses with high transformational leadership style, for example, were more likely to have followers with higher job satisfaction than transactional leaders (Medley & Larochelle, 1995). Pillai, Schriesheim, and Williams (1999) reported that transformational and transactional leadership were related to follower outcomes, as mediated by perceptions of fairness and trust in the leader. Similarly, Podsakoff, Mackenzie, Moorman, and Fetter (1990) found that transformational leadership affected OCB, but the relationship was indirect, rather than direct. They found that the effect of transformational leadership on OCB, while positive, was mediated by followers' trust in their leader (Podsakoff et al., 1990). The first study reported here includes group member satisfaction, commitment, and intentions to remain in the group in a volunteer service club.

STUDY 1: SERVICE CLUB MEMBER PERCEPTIONS OF CLUB LEADERS

While there is a burgeoning literature on the role of leadership in the traditional organization (Giffords, 2003), much less attention has been paid to the impact of leadership on organizational behavior in nontraditional organizations such as volunteer organizations, service clubs, and charities (Clary & Snyder, 1999). Volunteer organizations are faced with many problems typical of for-profit organizations such as turnover, commitment, and job satisfaction. Therefore, the vast literature on leadership should be extended to address similar issues faced by non-profit organizations. To that end, it is an empirical question whether traditional leadership theories can be applied successfully to volunteer organizations.

The purpose of Study 1 was to examine the role of leadership and concomitant members' attitudes in voluntary service organizations such as Lions Club or Rotary Club International, Inc. It was hypothesized that organizational identity is a potential mechanism (as shown by mediation analysis) through which transformational leaders influence employees' outcomes. We propose that the relationships between transformational leadership and followers' perceptions will be mediated by organizational identity. The mediation model is shown in

Figure 13.1. Specifically, it was hypothesized that organizational iden- tity would act as a mediator between club member perceptions of ser- vice club leaders' transformational leadership style and club member ratings of their own satisfaction, commitment, and intentions to stay within the organization.

METHOD

Participants

Presidents and members of eight service clubs in a southeastern city were invited to complete an online or a paper survey. Club size ranged from as few as 20 members to approximately 200 members. The admin- istrative framework of the service clubs under study was based on club leadership. Club presidents serve 1-year unpaid terms. They are expected to develop goals for the organization, maintain open lines of communication, involve all members in club activities, and arrange club meetings. A board of directors forms the clubs' governing body and includes the president and other officers.

A total of 110 surveys were completed (66 paper surveys were returned and 44 respondents completed the online survey). A 33% response rate for the paper surveys was attained by dividing the num- ber of surveys returned by the number of surveys handed out at club meetings. As it was unknown how many club members who were pres- ent at the meetings had access to the Internet, calculating a response rate for the online sample was not meaningful.

For all clubs, respondents included 25 females (22.7%) and 85 males (77.3%). Over half of the participants (58.2%) were between the ages of 46 to 65 years old. A sizeable minority of the sample (20%) was retired. Most of the sample (93%) were college educated (with a minimum of an undergraduate degree). Participants were predominantly European American (86%), with 10% reporting "other," and 4% not reporting. The average number of years as a club member was 10.32 ($SD = 9.63$). The reported average number of hours spent on club activities in a 2-week period was 4.19 ($SD = 2.64$).

Measures

Transformational Leadership The short version of the Multifactor Leadership Questionnaire (MLQ) Leader Form 5X (Bass & Avolio, 1997) was distributed to the leaders, whereas the short MLQ Rater Form (5X) was distributed to group members. Responses were mea- sured by a 5-point scale, ranging from *not at all* = 0 to *frequently, if not always* = 4. For this study, reliability for this scale was α = .96.

Organizational Identity   Mael and Ashforth's six-item (1992) organizational identity scale (as cited in Haslam, 2004, p. 273) was used to measure club identification. An example item is "When I talk about this club, I usually say 'we' rather than 'they.'" Chronbach's alpha coefficient for this study was equal to .77. Items were measured on a 7-point Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*).

Commitment   The short form nine-item version of Mowday, Steers, and Porter's (1979) Organization Commitment Questionnaire (OCQ) was used to measure commitment. The OCQ scale used a 7-point Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). A sample commitment item is "I talk up this club to my friends as a great organization to belong to."

Satisfaction   One item was adapted from Cammann, Fichman, Jenkins, and Klesh's (1983) satisfaction instrument (as cited in Fields, 2002). The item was "All in all, I am satisfied with my membership in this club." The item was answered on a 7-point Likert scale that ranged from 1 (*strongly disagree*) to 7 (*strongly agree*).

Intentions to Remain   One item from Cook, Hepworth, Wall, and Warr's (1981; as cited in Fields, 2002) scale measured intentions to remain within the organization. The question was "The likelihood of my continued membership in this club is high," which was answered on a 7-point Likert format.

Demographics   Questions included the length of membership in the organization and in this particular club, gender, age, ethnicity, retirement status, and educational background.

Procedure

A researcher attended a club meeting at each of the eight clubs over the course of 3 months. At the club meetings, the club presidents announced the study, introduced the researcher, and invited members to participate. The researcher was allowed to describe the purpose of the research project and to distribute copies of the survey.

Members of the club had the option of either completing the survey form distributed at the club meeting or completing an identical survey online. The survey was advertised on postcards and distributed at the club meetings; the survey link was also published on the club's monthly bulletin or newsletter.

To retain anonymity, a drop box was placed at each clubhouse or participants could mail the completed surveys directly to the university in the provided prepaid envelopes. The electronic online survey was also anonymous; responses on the electronic database could not be matched to any particular respondent.

RESULTS

Preliminary Analyses

There were no differences in ANOVAs between the electronic and paper versions of the survey on the major outcome variables of the study (commitment, satisfaction, and intentions to stay), so the data for the two modes were combined for subsequent analyses. Similarly, there were no overall differences between the eight clubs for individual club members' ratings of the four major outcome variables. Therefore, specific club means for these variables are not reported, and club membership was not used as a control variable in testing for mediation.

In a multiple regression analysis, the four demographic variables of gender, retirement status, age, and education did not predict commitment, nor were these variables significantly related to satisfaction or intentions to stay in the club. Therefore, it was not necessary to control for the effects of these demographic variables in testing the mediation model.

Individual-level differences or members' perceptions of leadership styles were assumed to be the most valid measure of club leadership for testing the proposed mediation model. It would be beneficial to examine whether club members' perceptions of leadership style were correlated with the club leaders' self-ratings. That is, did club members rate leaders as they rated themselves? Club members rated their leaders slightly higher on transformational leadership than the leaders themselves ($r = .25$, $p < .05$).

Mediation Model Testing

A series of regression analyses was performed to test for organizational identity as a mediator of transformational leadership effects on commitment, satisfaction, and intentions to remain using the logic of Baron and Kenny (1986). Baron and Kenny proposed that in order to establish mediation using regression analyses, the following conditions must hold: (a) the predictor variable must significantly affect the mediator; (b) the predictor variable must affect the outcome variable; and (c) the mediator must affect the outcome variable when the predictor

variable is also entered into the regression equation (see Figure 13.1). If these conditions all hold, then for mediation to occur, the effect of the predictor must be significantly less when coupled with the mediator (in condition c) than when regressed on the outcome variable alone (in condition b). Perfect mediation occurs if the predictor variable no longer has an effect when the mediator is entered into the equation (Baron & Kenny, p. 1177).

Condition a for mediation for all of the models was met; transformational leadership significantly affected organizational identity, Adj. $R^2 = .04$, $F(1, 99) = 4.64$, $p < .05$ with $\beta = .36$, $p < .01$, for transformational leadership. The remainder of the regression analyses testing for mediation are discussed here.

Satisfaction As Table 13.1 shows, the relationship between satisfaction and leadership was reduced but not eliminated when identity was added to the equation (from $\beta = .31$ $p < .01$, to $\beta = .20$, $p < .05$); organizational identity was a partial mediator of the relationship between transformational leadership and satisfaction. For transformational leadership's effect on satisfaction, Adj. $R^2 = .09$, $F(1, 99) = 3.82$, $p < .01$. When organizational identity was added to the equation, Adj. $R^2 = .33$, $F(2, 98) = 25.71$, $p < .001$, and $\Delta R^2 = .25$, $F(1, 98) = 37.06$, $p < .001$.

Commitment Organizational identity was not a mediator of commitment, as the relationship between transformational leadership and commitment by itself was not significant, $F(1, 99) = 3.23$, $p = .08$. As can be seen from Table 13.1, however, when organizational identity was added to the equation, the standardized beta weight for transformational leadership was reduced in a way that would be similar to that produced by mediation. When both transformational leadership and identity were in the equation, the Adj. $R^2 = .31$, $F(2, 98) = 23.65$, $p < .001$, and β was .056 for organizational identity, suggesting a strong relationship between identity and commitment.

Intentions to Stay Organizational identity was a full mediator of the relationship between transformational leadership and intentions to remain in the club (Table 13.1). When identity was added to the equation, the relationship between transformational leadership and intentions was no longer significant, reducing $\beta = .22$ ($p < .05$) to $\beta = .15$ ($p = .12$). For the relationship between transformational leadership and intentions, Adj. $R^2 = .04$, $F(1, 99) = 5.17$, $p < .05$. When organizational identity was added to the equation, the $\Delta R^2 = .12$, $F(1, 98) = 14.60$, $p < .001$.

Table 13.1 Study 1: Organizational Identity as Mediator of Relationship between Perceptions of Transformational Leadership and Attitudes of Service Club Members

		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	β	t	p Value
Model: Satisfaction						
1	(Constant)	5.618	.286		19.654	.000
	Transformational leadership	.325	.100	.310	3.244	.002
2	(Constant)	3.785	.388		9.755	.000
	Transformational leadership	.212	.088	.202	2.416	.018
	Organizational identity	.362	.059	.510	6.087	.000
Model: Commitment						
1	(Constant)	5.274	.494		10.685	.000
	Transformational leadership	.311	.173	.178	1.798	.075
2	(Constant)	1.946	.656		2.964	.004
	Transformational leadership	.106	.149	.060	.712	.478
	Organizational identity	.657	.101	.555	6.533	.000
Model: Intentions to Stay						
1	(Constant)	5.983	.315		18.988	.000
	Transformational leadership	.251	.110	.223	2.274	.025
2	(Constant)	4.594	.468		9.807	.000
	Transformational leadership	.166	.106	.147	1.562	.122
	Organizational identity	.274	.072	.359	3.821	.000

DISCUSSION

Study 1

In Study 1, organizational identity was a partial mediator of the relationship between perceptions of transformational leadership and satisfaction. It was a full mediator of the relationship with intentions

to stay. It was not a mediator of the relationship with commitment. The relationship between commitment and transformational leadership was not significant, although the trend was in the right direction. If the relationship between the leadership and commitment variable had been significant, organizational identity would appear to have mediated this relationship (Table 13.1).

In Study 2, we examine a similar meditation model between transformational leadership and follower perceptions using two different samples in a completely different context: transformational leaders in grocery stores and fast-food restaurants.

Study 2: Employee Perceptions of Fast-Food Restaurant and Grocery Store Managers

The first aim of Study 2 was to examine whether transformational leadership, rather than transactional leadership, is associated with higher levels of group member satisfaction and OCB in two different types of service organizations. The second aim was to examine organizational identity as a potential mediator through which transformational leaders influence employee perceptions. As in Study 1, we hypothesized that organizational identity would act as a mediator between employee perceptions of manager transformational leadership style and ratings of their own satisfaction and organizational citizenship. Finally, we conducted an exploratory analysis to determine whether there were differential effects of a cognitive component (social categorization) of social identity as a mediator compared with an emotional component (affective commitment).

METHOD

Participants

The participants were 66 employees, 35 from 7 different branches of an Australian supermarket chain and 31 from 5 different restaurants in a fast-food chain. Of this number, 54 employees were work group members, and 12 were the store managers. Initially, 150 surveys were distributed to team members of 12 managers. The response rate was 44%.

The employee profiles for the two types of organizations were similar. The mean age range of the supermarket employees was 29.3 years, while the fast-food employees were, on average, 26 years old. The mean number of years employed was 8.12 for the supermarket employees and 5.38 for the fast-food employees. There were 20 male and 15 female supermarket employees, and 15 male and 16 female fast-food employees

in the sample. For both types of organizations, participants had worked for their organization for approximately 6 years, and had worked for their leaders for an average of approximately 2.5 years.

Seven supermarket store managers and five fast-food operators were identified as leaders of their particular organizations. Leadership data were matched to team member data for all 12 of these leaders. The age range of leaders who participated was 24–45 years, with a mean age of approximately 36 years. The 12 leaders were all males. Leaders had worked as store managers for a mean of approximately 7 years. All leaders had been in their current roles at least 6 months.

Measures

Transformational and Transactional Leadership   The short version of the MLQ Leader Form 5X (Bass & Avolio, 1997) was distributed to the leaders. The short version of the MLQ Rater Form (5X) was distributed to the group members. Responses were measured by a 5-point scale, ranging from *not at all* = 0 to *frequently, if not always* = 4. For this study, the Chronbach's alpha reliability coefficient for the 20 transformational leadership questions was .95, while the internal reliability (α) for the 12 transactional leadership questions was .78.

Follower Organizational Identity   Based on previous work by Brown, Condor, Mathews, Wade, & Williams (1986; as cited in Haslam, 2004, p. 272), seven social identity questions were used (see Table 13.5). Responses were measured on a 5-point Likert scale, ranging from *strongly disagree* to *strongly agree.*

When a PCA on the seven items was constrained to a single component, that component accounted for 52.6% of the variance. Questions were assumed to load on a factor if their factor loadings were greater than .40; six of the seven items did so. Except for the one negatively worded item with a factor loading of .33, factor loadings ranged from .69 to .84. However, as the Cronbach's alpha reliability of .84 was acceptable, all of the items from the scale were retained, including the negative item.

Group Member Satisfaction   Four satisfaction questions were incorporated into the questionnaire: (1) I am satisfied with my fellow workers; (2) I am satisfied with my job; (3) I am satisfied with the leader of my group; and (4) I am satisfied with my work environment. They were supplemented by Kunin's faces scale (1955), which has previously been found to be a reliable and valid measure of overall satisfaction. Chronbach's alpha for the satisfaction scale in this study was .83.

Organizational Citizenship Behavior   Nineteen self-reported OCB questions were incorporated into the survey, combining items developed by Podsakoff et al. (1990) and Podsakoff, Ahearne, and McKenzie (1997). The questions included in the present study were intended to tap into four types of citizenship behavior identified by Organ (1988). The four types of OCB measured were (1) altruism—behaviors that have the effect of helping others with organizationally relevant tasks; (2) civic virtue—behaviors that indicate that the individual participates in, or is concerned about the life of the organization; (3) sportsmanship—willingness by the employee to tolerate less-than-ideal circumstances without complaining; and (4) conscientiousness—behaviors that go beyond minimum role requirements in the areas of attendance, obeying rules, and so forth (Podsakoff et al., 1990). A 5-point Likert scale, ranging from *strongly disagree* to *strongly agree,* was used to measure OCB. The Chronbach's alpha reliability coefficient for the 19 items used in this study was .79.

Demographics   Demographic questions included participant's age, gender, employment status (i.e., full-time vs. part-time), and years worked for the organization and for the manager.

Procedure

The MLQ Leader Form was distributed to store managers or operators. At weekly store management team meetings, questionnaires were distributed to all management team members. Team meetings typically consisted of at least 10 department managers and assistant managers who, for the purpose of this study, were considered employees or followers of the store managers. The questionnaires distributed to followers consisted of the MLQ Rater Form, the follower social identity questionnaire, the group member satisfaction questionnaire, and the OCB questionnaire. A leader ID number at the top of each leader and follower questionnaire matched followers to their leaders. Questionnaires were completed in the participants' own time and returned via postage-paid return envelopes.

RESULTS

Preliminary Analyses

As we are primarily interested in how perceived transformational leadership affects work group identity and employee attitudes, individual perceptions, including individual perceptions of store leadership, will

be used in subsequent analyses. We did, however, collect self-ratings of leaders' transformational and transactional styles. There were no significant differences between self-ratings and follower ratings for either transformational or transactional styles. The leaders appeared to be rated more transformational by followers ($M = 3.77$ out of 4, $SD = .72$) than transactional ($M = 3.06$, $SD = .43$).

A series of analyses of variance was conducted to examine whether there were overall organization-level (i.e., fast-food or grocery store) effects on the mediator and the primary outcome variables of the study: organizational identity, satisfaction, and OCB. No such differences were found; therefore, the data from organizations were combined without regard to organization type. Similarly, there were no gender or employment status (full-time vs. part-time) effects on any of the outcome or mediator variables; therefore, subsequent analyses will not include these variables as covariates.

Transactional versus Transformational Leadership

Multiple regression analyses were initially conducted to investigate the effects of transformational leadership on employee satisfaction and OCB, compared to transactional leadership (Table 13.2). When transformational and transactional leadership scores were entered simultaneously into regression equations for (a) satisfaction, (b) OCB, and (c) organizational identity, all three regressions were significant: (a) Adj. $R^2 = .41$ for satisfaction, $F(2, 51) = 5.88$, $p < .001$; (b) Adj. $R^2 = .19$ for OCB, $F(2, 51) = 7.17$, $p < .01$; and (c) Adj. $R^2 = .19$, $F(2, 51) = 7.04$, $p < .01$. The correlation between transformational leadership and transactional leadership was not significant ($r = .16$, *ns*). Transactional leadership was not a significant predictor of any of the three outcomes. As predicted, transformational leadership significantly predicted responses on all three measures (Table 13.2).

Mediation Analyses

The mediation models for employee satisfaction and self-reported OCB were tested as in Study 1, using the logic of Baron and Kenny (1986). Baron and Kenny's condition a (from the section "Mediation Model Testing") for mediation for all of the models was met; transformational leadership significantly affected organizational identity, Adj. $R^2 = .20$, $F(1, 52) = 14.22$, $p < .001$ with $\beta = .46$, $p < .001$, for transformational leadership. The remainder of the regression analyses testing for mediation are discussed below.

Satisfaction   Baron and Kenny's conditions a, b, and c all hold for the relationship between transformational leadership and satisfaction as

Table 13.2 Study 2: Transactional and Transformational Leadership Effects on Satisfaction, Organizational Citizenship Behavior, and Organizational Identity on Grocery Store and Fast-Food Employees

	Unstandardized Coefficients		Standardized Coefficients		
	B	**Std. Error**	**β**	**t**	**p Value**
Model: Satisfaction					
(Constant)	1.906	.618		3.086	.003
Transformational leadership	.665	.108	.665	6.135	.000
Transactional leadership	−.087	.181	−.052	−.482	.632
Model: OCB					
(Constant)	2.357	.439		5.364	.000
Transformational leadership	.291	.077	.479	3.778	.000
Transactional leadership	−.138	.129	−.136	−1.070	.289
Model: Organizational Identity					
(Constant)	2.638	.552		4.781	.000
Transformational leadership	.347	.097	.455	3.580	.001
Transactional leadership	.051	.162	.040	.316	.753

mediated by organizational identity. For condition a, transformational leadership significantly affected organizational identity.

Table 13.3 shows conditions b and c also hold for this data. Adj. $R^2 = .39$ for transformational leadership's effect on satisfaction was significant, $F(1, 52) = 34.98$, $p < .001$. The Adj. $R^2 = .54$ with organizational identity added to the equation was also significant, $F(2, 51) = 32.98$, $p < .001$. The change in R^2 between conditions b and c was significant as well, $\Delta R^2 = .16$, $F(1, 51) = 18.92$, $p < .001$. When organizational identity was added to the equation, the relationship between satisfaction and transformational leadership was reduced (from $\beta = .63$, $p < .001$ to $\beta = .44$, $p < .001$). As the beta weight still remained significant, organizational identity was only a partial, not a full, mediator of the relationship between leadership and satisfaction.

Table 13.3 Study 2: Organizational Identity as Mediator of Relationship between Transformational Leadership and Grocery Store and Fast-Food Employee Perceptions

		Unstandardized Coefficients		Standardized Coefficients		
		B	**Std. Error**	**β**	**t**	**p Value**
	Model: Satisfaction					
1	(Constant)	3.844	.220		17.437	.000
	Transformational leadership	.341	.058	.634	5.914	.000
2	(Constant)	2.853	.297		9.616	.000
	Transformational leadership	.238	.055	.443	4.332	.000
	Organizational identity	.319	.073	.445	4.35	.000
	Model: OCB					
1	(Constant)	2.003	.290		6.917	.000
	Transformational leadership	.273	.075	.449	3.627	.001
2	(Constant)	1.253	.392		3.197	.002
	Transformational leadership	.200	.076	.329	2.622	.012
	Organizational identity	.250	.094	.336	2.676	.010

Organizational Citizenship Behavior   A similar pattern holds for OCB (Table 13.3). As the relationship between OCB and leadership was reduced but not eliminated when identity was added to the equation (from $\beta = .45$, $p < .01$ to $\beta = .33$, $p < .05$), organizational identity was a partial mediator of the relationship between transformational leadership and OCB. Adj. R^2 for transformational leadership's effect on OCB equals .18, $F(1, 52) = 13.12$, $p < .001$. When organizational identity was added to the equation, Adj. R^2 equals .34, $F(2, 51) = 14.68$, $p < .001$, while $\Delta R^2 = .16$, $F(1, 51) = 13.16$, $p < .001$.

Exploratory Analyses

In order to examine whether the three components of social identity as delineated by Ellemers et al. (1999) could be identified in this study, we performed a PCA with Varimax rotation on the organizational

identity scale items. A two-component (not a three component) solution fit best after using the convention of Kaiser criterion of eigenvalues greater than one and examining the screen plot (see Table 13.5). The two components roughly corresponded to a social categorization component and an affective commitment component. Together, the two dimensions accounted for 70.71% of the variance explained by the PCA (Table 13.5). Subscales of organizational identity were constructed using the five social categorization questions and the two affective commitment questions. Next, separate hierarchical regression analyses of follower perceptions of satisfaction and OCB were conducted with transformational leadership entered in Step 1, the larger social categorization subscale entered in Step 2, and the smaller affective commitment subscale entered in Step 3. The relationship between satisfaction and transformational leadership was reduced when social categorization was added to the equation ($\beta = .67$ $p < .001$ to $\beta = .55$, $p < .001$; $R^2 = .49$; $\Delta R^2 = .08$, $F(1, 51) = 8.44$, $p < .01$; Table 13.4). Adj. R^2 for transformational leadership's effect on satisfaction when affective commitment was also added to the equation was $R^2 = .70$, $F(1, 52) = 42.63$, $p < .001$, $\Delta R^2 = .21$, $F(1, 51) = 36.94$, $p < .001$. The beta weight for transformational leadership was further reduced (from $\beta = .55$ $p < .01$ to $\beta = .35$, $p < .01$). Social categorization was also significantly reduced from Step 2 to Step 3 of the regression (from $\beta = .30$ $p < .01$ to $\beta = .17$, $p < .05$; Table 13.4), suggesting that affective commitment had more impact on follower satisfaction than social categorization.

A similar pattern holds for OCB (Table 13.4). Adj. R^2 for transformational leadership's effect on OCB was significant, Adj. $R^2 = .19$, $F(1, 52) = 13.12$, $p < .001$. As the relationship between OCB and leadership was reduced, but not eliminated, when social categorization was added to the equation (from $\beta = .45$ $p < .001$ to $\beta = .33$, $p < .01$), social categorization was a partial mediator of the relationship between transformational leadership and OCB. When social categorization was added to the equation in Step 2, Adj. R^2 equaled .27, $F(2, 51) = 10.94$, $p < .001$; $\Delta R^2 = .10$, $F(1, 52) = 7.20$, $p < .01$. When affective commitment was added to the equation in Step 3, Adj. R^2 equaled .37, $F(2, 51) = 11.50$, $p < .001$; $\Delta R^2 = .11$, $F(1, 51) = 9.13$, $p < .001$. The beta weight for transformational leadership was no longer significant when both social categorization and affective commitment were in the equation, suggesting both dimensions of social identity together acted as a full mediator of the effects of transformational leadership on OCB. In Step 3, social categorization was also significantly reduced when affective commitment

Table 13.4 Study 2: Cognitive and Affective Components of Organizational Identity as Mediators of the Relationship between Transformational Leadership and Grocery Store and Fast-Food Employee Perceptions

		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	β	*t*	*p* Value
	Model: Satisfaction					
1	(Constant)	1.686	.400		4.215	.000
	Transformational leadership	.655	.104	.656	6.268	.000
2	(Constant)	.563	.538		1.048	.300
	Transformational leadership	.547	.105	.547	5.224	.000
	Social categorization	.373	.128	.304	2.905	.005
3	(Constant)	−.005	.422		−.012	.991
	Transformational leadership	.351	.086	.352	4.071	.000
	Social categorization	.207	.102	.169	2.029	.048
	Affective commitment	.482	.079	.532	6.078	.000
	Model: OCB					
1	(Constant)	2.010	.288		6.978	.000
	Transformational leadership	.273	.075	.449	3.623	.001
2	(Constant)	1.255	.391		3.208	.002
	Transformational leadership	.200	.076	.329	2.623	.011
	Social categorization	.251	.093	.336	2.683	.010
3	(Constant)	1.006	.373		2.699	.009
	Transformational leadership	.114	.076	.188	1.498	.140
	Social categorization	.178	.090	.239	1.975	.054
	Affective commitment	.212	.070	.384	3.021	.004

was added (from $\beta = .34$ $p < .05$ to $\beta = .24$, $p = .05$), suggesting that affective commitment may actually be mediating the effects of social categorization on OCB.

DISCUSSION

In Study 2 concerning grocery store and fast-food employees, organizational identity partially mediated the relationship between transformational leadership and the employee self-reports of satisfaction and OCB. In Study 1 of perceptions of leaders by service club members, organizational identity was a partial mediator of the relationship between perceptions of transformational leadership and satisfaction. It was a full mediator of the relationship with intentions to stay. It was not a mediator of the relationship with commitment. The relationship between commitment and transformational leadership was not significant, although the trend was in the right direction. If the relationship between the leadership and commitment variable had been significant, organizational identity would appear to have mediated this relationship (Table 13.3).

As theorists hypothesized (e.g., van Knippenberg et al., 2004), organizational identity was related to leadership, and served, at least partially, as a mediator between it and follower attitudes and self-reported behaviors (OCB). We have shown that this relationship may be particular to certain types of leadership. As shown in Study 2, only transformational leadership was related to follower perceptions, not transactional leadership. This result was predicted, as transformational leadership is based on building relationships with followers through encouragement and inspiration, as opposed to transactional leadership, which is based on exchange mechanisms (Bass & Avolio, 1997). The transformational leader puts forth a vision of the future for the group that the follower wants to embrace, thus engaging organizational identity and its concomitant follower outcomes (e.g., van Knippenberg et al., 2004, 2005). We agree with Van Vugt and Hart (2004, p. 585): social identity may be the "social glue" that encourages loyalty and hence holds groups together.

In more detailed exploratory analysis in Study 2, we found that the social identity measure could be differentiated into two dimensions, as opposed to the three hypothesized by Ellemers et al. (1999). In Study 2, the organizational identity scale seemed to be weighted toward a five-item component. Another smaller (two-item) component, resembled an affective commitment dimension (Ellemers et al., 1999). The five-item

component had three questions (the second, third, and fourth items listed in Table 13.5) that clearly resembled Ellemers et al.'s social categorization questions. The third dimension, group self-esteem, was not addressed by this scale, or was so highly related to the social categorization items as to be indistinguishable from them. Of the social categorization and affective commitment dimensions, affective commitment appeared to be the stronger mediator of the relationship between follower perceptions of transformational leadership and satisfaction and OCB. Similarly, Ellemers et al. reported that affective commitment was the only mediator of the relationship between group structure and follower in-group favoritism. It appears that social categorization has some effects on follower perceptions, yet those effects are reduced when affective commitment was added. Affective commitment may even be a mediator of the relationship between social categorization and transformational leadership. Unfortunately, it was not possible to conduct a similar exploratory analysis in Study 1, because the Mael and Ashforth (1992) organizational identification measure used in Study 1 lacks clear social categorization items, concentrating instead on the affective aspects of social identity (Haslam, 2004).

Limitations

Assumptions of Independence   These results should be interpreted with caution. A potential problem with field studies that use preexisting groups is that group-member interactions may affect their responses, violating the assumption of independence (Anderson & Ager, 1978; Kenny & La Voie, 1985). A potential solution is to analyze the data using hierarchical linear modeling (HLM; Raudenbush & Bryk, 2002) at the group and individual levels, but the sample sizes for these studies were not sufficient for this type of analysis. A more conservative level of analysis with this data would have been to analyze the results at the store or club level. However, this strategy would have greatly reduced the statistical power to test the hypotheses. An alternative approach was to use club membership or store employment as a control variable at the individual level of analysis. This proved to be unnecessarily conservative, as club membership and store by themselves did not significantly affect the outcome measures. Finally, the rationale can be made that the importance of leadership was not at the organization level, but in how individual perceptions of the leader affected that particular individual's commitment, satisfaction, retention and/or OCB.

Therefore, the individual level of analysis was deemed as appropriate to test the hypotheses addressed in these particular studies.

Common Method Variance   Another potential problem endemic to survey data is common method variance, which occurs when the predictor data is collected from the same source as the outcome data (MacKenzie, Podsakoff, & Rich, 2001; Podsakoff, Mackenzie, Lee, & Podsakoff, 2003). The relationships reported may simply be a result of the same respondents providing the responses for both sets of variables.

One way to address common method variance would have been to use leaders' ratings to predict member outcomes. This was the major reason that leaders were asked to rate themselves on the leadership scales. While the leaders' ratings were significantly correlated with their club members' ratings, these ratings were not identical. For the purposes of this study, the individual's perceptions of the leader were assumed to be the most important aspect in predicting behavior, not the shared perceptions of the group or the perceptions of the leader. With a larger sample size, another solution would have been to test the model at the individual level of analysis, adding a common method factor to a structural equation model (MacKenzie et al., 2001; Podsakoff et al., 2003). As the proposed model was tested at the individual level of analysis with relatively small samples, these results must be interpreted cautiously in light of common method variance.

Future Directions

The process of mediation and organization identification should be explored in more detail. Organizational identity was a partial, not a full, mediator between transformational leadership and follower outcomes such as satisfaction and OCB, so there are almost certainly other psychological processes occurring simultaneously. Similarly, Study 2 points to the possibility that some aspects of social identity may be more important mediators of follower perceptions than others. Future research should be undertaken to specifically test whether the affective commitment component is a better predictor of follower perceptions than the social categorization or group self-esteem elements. We hypothesize that social categorization and group evaluation may be necessary precursors in order for followers to develop affective commitment, but it may be affective commitment that drives follower perceptions and behavior.

Another idea for future research based on the transformational literature is to examine the role of trust as a mediator of follower outcomes (Podsakoff et al., 1990), or as an outcome of organizational identity itself. Assumed trust of other in-group members has been shown to be an important outcome of identification processes (Brewer, 1981).

The somewhat low response rates and small sample sizes may affect the generalizability of the findings. However, taken together, the two studies reflect perceptions of 20 leaders from three very different samples: older, white American males who have volunteered to be members of a service club for a relatively long length of time, and younger Australian employees of grocery stores and fast-food restaurants with relatively less tenure in their organizations. The fact that organizational identity is a partial mediator in both studies is encouraging for generalizability of the mediation model to other organizations. One area for future research, however, is to test the model in larger organizations of different types to see if mediation still occurs, as it may be argued that all three samples tested here are service-oriented organizations, whether for-profit or not-for-profit.

Another future area for research would be to examine what other types of leadership mediate organizational identity processes. It seems likely that any style that is charismatic or based on the personal attributes of the leader (e.g., Lord et al., 1984, 1999) would engage the social identity processes of the follower. Given the percent of variance explained by the models in Table 13.4 (70% for satisfaction and 37% for OCB), fostering organizational identity among employees, especially the affective commitment component, is a management strategy that almost certainly has practical relevance. If a leader can cultivate organizational identity among followers, those followers may be happier and more likely to help the organization when it is not required. For followers of transformational leaders who successfully inspire identification processes, Ruth's words (1:16, King James Bible) may be appropriate: "For whither thou goest, I will go."

As this chapter is part of a celebration of Marilynn Brewer's career, we think it is appropriate to end on a personal note. The first author was a protégé of Marilynn Brewer at UCLA, and the coauthors are all her intellectual "grandchildren." Marilynn is the embodiment of the type of transformational leader discussed in this chapter. Her vision and support have had a transformative effect on both my personal life and professional life, and consequently on the lives of my students. Every day, I try to live up to her example as a mentor and as a friend. Marilynn, wherever you go, I'll gladly follow.

APPENDIX

Table 13.5 Study 2: Principal Component Loadings of Organizational Identity Questions

Items	Loading 1	Loading 2
Cognitive Component: α = .83		
I feel a sense of belonging with other members of my work group.	.84	.14
I feel that I identify with the other members of my work group.	.83	.05
I fit in well with other members of my work group.	.82	.22
I have similar attitudes and opinions as other members of my work group.	.75	.00
I feel strong ties with other members of my work group.	.66	.31
Affective Commitment Component: α = .74		
In general, I am glad to be a member of my work group.	.48	.75
I often regret that I am a member of my work group (reversed).	.05	.94
Eigenvalue	3.67	1.27
Cumulative % of variance	52.55%	70.71%

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14

COOPERATION AND THE COMMONS

Laboratory and Field Investigations
of a Persistent Dilemma

Roderick M. Kramer

In 1968, the biologist Garrett Hardin published a six-page article in *Science* entitled "The Tragedy of the Commons." Historically, the commons were public pastures in small communities on which local herders could freely graze their livestock. In such situations, it was in the self-interest of each individual herder to graze as many animals as possible on the commons, since all of the profits from sale of the livestock accrued directly to the individual, while the costs of open grazing—measured in terms of damage to the commons—were shared by all of the herders. Yet, if all of the herders pursued their individually rational course of action, the result was the eventual devastation of the commons. Thus, individual rationality—perfectly sensible and sensibly pursued—led inexorably to collective folly.

The tragedy of the commons was a social and historical phenomenon that was interesting in its own right, informing us of the struggles past communities confronted when trying to solve problems of cooperation and coordination. However, Hardin recognized that the mixed-motive decision structure embodied in this situation was prototypic also of a large number of contemporary problems involving cooperation and coordination among interdependent actors sharing valuable but scarce resources.

So persuasive was Hardin in articulating this connection that his analysis of the commons went on to stimulate enormous interest among social scientists. Social psychologists (Dawes, 1980; Messick & Brewer, 1983), sociologists (Kollock, 1998), and political scientists (Ostrom, 1990) alike were quick to embrace the theoretical nuances of the parable and investigate its empirical implications. Interest in the commons remains strong even today (a recent check at *Google Scholar* reveals over 10,000 citations to the original article).

For the most part, the central question that preoccupies scholars interested in the tragedy of the commons concerns the prospects for cooperative resolution of the dilemma. Specifically, what insights could the social sciences contribute to helping societies avert contemporary commons dilemmas that are emerging around the globe (Meadows, Randers, & Meadows, 2004)?

My own introduction to this question came in the summer of 1980, when I sat down for my first meeting with Marilynn Brewer. Marilynn had been assigned as my first-year advisor in the doctoral program in social psychology at the University of California at Santa Barbara. After a few moments of pleasant chatter, Marilynn handed me a copy of Julian Edney's essay on the commons (Edney, 1980), which had just been published in the *American Psychologist*. She informed me, "This is a problem on which I'm currently working. See if it interests you. If it does, I'd love to have you as my research assistant." The problem did interest me (although, if the full truth be told, it was more the prospect of working with Marilynn that attracted me; her warmth and enthusiasm were infectious, and I knew immediately I wanted to work for her).

I mention these details because, in a fashion hopefully befitting a Festschrift, my aim here is to celebrate and honor Marilynn Brewer's presence and influence as a mentor—a presence and influence that have been continuous and constructive throughout my academic career. Even today, I sometimes feel as if Marilynn is looking over my shoulder, whispering, "Remember: rigor *and* relevance!" (Students of Marilynn will recognize this as just one of a variety of memorable and wise admonitions she routinely offered her doctoral students—often with a winning smile and a nervous twist of her hair!)

In this chapter, accordingly, I would like to briefly recount some of the work Marilynn and I did together, which remains the most enjoyable and fruitful collaboration of my career, as well as some of the subsequent steps I took on my own exploring the problem of the commons. I did not realize it at the time, but the problem of tracing the origins of cooperation that Marilynn had so casually introduced me to would preoccupy me for several decades.

ANGST AND ANALOGUES: CAPTURING THE TRAGEDY OF THE COMMONS IN THE LABORATORY

In studying important real-world problems in laboratory settings, Marilynn encouraged her students to think in terms of developing compelling experimental analogues (Brewer, 1985). She was insistent, moreover, that we pursue both internal and external validity in our experiments. One of our first tasks in studying the commons dilemma, accordingly, was to develop a convincing laboratory analogue of this problem. Getting study participants to interact convincingly in a computer-based laboratory environment in the early 1980s was a far from easy task. The early minicomputers, such as the DEC PDP-1134 we had at our disposal, were far from obedient collaborators, especially compared to today's PC-based, network-ready computers. In those days, we had to spend dozens of hours convincing computer terminals to cooperate with each other and coordinate their actions. The paradigm we eventually developed proved convincing and surprisingly effective and flexible (see Parker et al., 1983, for a fuller description). In fact, variations on this paradigm continue to be used in research throughout the world even today.

In one of our first empirical studies, we explored the social psychological underpinnings of cooperative choice in this simulated commons dilemma (Messick et al., 1983). Specifically, we investigated how individuals' "expectations of reciprocity" influence their willingness to exercise personal self-restraint when sharing common resources. Such expectations represent one important cognitive component of trust, of course. Similarly, people's willingness to exercise personal self-restraint when consuming shared resource pools can be viewed as a behavioral indicator of their trust in others.

Consistent with our theoretical expectations, we found that individuals who expected reciprocal restraint from other group members were more likely to exercise personal self-restraint themselves. This restraint was especially evident, moreover, under conditions of increasing resource scarcity. Thus, we showed (at least in the context of our laboratory simulation) that individuals are quite willing to do their part to preserve an endangered collective resource so long as they believe others in their group are willing to do so as well.

In a subsequent set of experiments using this same paradigm, Marilynn Brewer and I (Brewer & Kramer, 1986; Kramer & Brewer, 1984) extended this investigation by examining the effects of "group-based trust" on cooperation in social dilemmas. Drawing on Brewer's previous work on in-group stereotyping and favoritism, we reasoned

that individuals within small, cohesive social groups might possess a generalized or "depersonalized" form of trust that extends to other in-group members. Even within the context of our minimal laboratory-created social groups, our data provided some support for this notion (although the data revealed a more complex picture than we had theorized). In particular, we found that a variety of psychological and structural factors influence both people's expectations about others' cooperative behavior and their own subsequent cooperative behavior. These factors included such variables as the decision structure or "framing" of the choice dilemma (viz., whether it was a "give some" versus "take some" choice), the "size" of the group confronting the dilemma, and the level of salient "social categorization" among individuals (with differentiating social boundaries creating more competitive orientations compared to collectivizing boundaries).

The next set of experiments, which was part of my dissertation research, was designed to explore the effects of these psychological variables on cooperation rates in another form of social dilemma known as a "security dilemma" (see Booth & Wheeler, 2008, for a recent review of this literature). In a security dilemma, decision makers must choose between cooperative restraint and potentially escalatory security allocations. As in our earlier studies, my research colleagues and I found that decision framing and the level of salient social categorization exert strong effects on cooperative choice in this form of the dilemma as well (Kramer, 1989; Kramer, Meyerson, & Davis, 1990). Specifically, we demonstrated how the framing of a risky security allocation decision (i.e., whether resource-use decisions were framed in terms of prospective gains versus losses) influenced decision makers' willingness to use additional resources to enhance security (and, psychologically speaking, close looming "windows of perceived vulnerability"). We also investigated how engaging in "best-case" versus "worst-case" mental simulations regarding an opponent's intentions and possible actions affected judgment and choice. Interestingly, we found that simply having people think about worst-case possibilities regarding their opponents' intentions and behaviors increased their willingness to allocate additional resources to protect against or offset those imagined threats.

The final series of experimental studies sought to investigate the role of distrust and suspicion in social dilemma situations (Kramer, 1998, 1999). Using a version of a collective trust dilemma, I examined the role cognitive factors play in the development of almost paranoid-like suspicion of other group members.

To summarize, the results of these various experimental investigations identified a wide range of social psychological variables that

influence cooperation levels across various forms of social dilemma. In retrospect, I have to confess there was something extremely satisfying about this laboratory work. It was gratifying to study a problem of real-world importance using the rigorous methods of the experimental social psychologist. The challenge of creating a compelling and engaging experimental analogue was extremely enjoyable—I always relished the excitement of running experiments and seeing how involved undergraduates could be when thinking about and making their decisions.

Despite these significant gratifications, I also felt over time a certain restlessness working within the confines of the behavioral laboratory. During my first year at the Stanford Business School, I was proudly telling an economist (an individual I greatly admired and who had worked in the White House as an economic advisor to the president) about my laboratory paradigm. He listened carefully to my enthusiastic pitch for laboratory work and then replied, "But what about real-world decision makers? Do you *really* think a President or his National Security Advisor would respond to real-world security dilemmas in the same way as the students playing your games? Maybe you should get out of the lab and interview some experienced, sophisticated decision makers." His point was a perfectly good one, of course. A central and persistent question in any program of experimental research is always the extent to which what we observe in the laboratory parallels or mirrors what is happening in the real world. The issue of external validity is always—or should be—in the front of the social psychologist's mind. Accordingly, I have made it a point throughout my research career to travel back and forth between the laboratory and real-world settings. In the case of the tragedy of the commons, this research strategy has meant using inductive, qualitative methods to study cooperation within complex organizational settings in both the public and private domains. In the next section, I describe one example of a recent study conducted in this spirit.

COOPERATION AND NONCOOPERATION IN A REAL-WORLD INSTITUTIONAL COMMONS

Following the successful terrorist attacks on American soil on September 11, 2001, the U.S. government formed a special commission to explore all of the facts and circumstances leading up to those coordinated assaults. The result was the *9/11 Commission Report: Final Report of the National Commission on Terrorist Attacks Upon the United States* (National Commission on Terrorist Attacks, 2004).

The report is both impressive in its thoroughness and formidable in terms of its scope, consisting of more than 280,000 words of primary

text and over 115,000 words of source notes. The very modest and intendedly circumscribed aim of my qualitative study, therefore, was to examine just one thin slice of the complex institutional dynamics identified in the report as having contributed to the tragic events of September 11, 2010. Specifically, I decided to examine the failure of various individuals and groups within the U.S. government to cooperate more effectively with each other with respect to the sharing and integration of intelligence information.

As I will argue, the failures of interagency cooperation described in the 9/11 Report parallel in many ways the kinds of breakdowns in cooperation observed in other kinds of commons dilemma situations, including the laboratory simulations described earlier in this chapter. As I have argued elsewhere, the problem of interagency information sharing within institutional settings can be modeled as an intergroup-level commons dilemma (Kramer, 1991a,b): even though all of the groups within a complex bureaucracy might be better off if they cooperated with each other by sharing pertinent information related to their respective missions, cooperative regimes are difficult to establish or sustain. To study this problem, I conducted two waves of research. The first wave scrutinized the published archival documents for evidence of social psychological processes that influenced cooperation among the intelligence agencies (Kramer, 2005). The second wave consisted of a series of follow-up interviews with individuals from the various intelligence agencies. These individuals shared their perceptions of their respective organizational cultures, along with their impressions of barriers and opportunities for cooperation.

The logic by which intergroup cooperation unravels parallels the individual case described earlier. From the standpoint of group rationality, there are few compelling incentives for groups to invest in collaboration. Competition among groups for status and other resources is often keen, fostering "zero-sum" orientations (Sherif, 1966). Attentional resources are often scarce, causing groups to shirk when it comes to investing in helping other groups. Finally, groups may decide they are better off getting a free ride as much as possible on the efforts of other groups, rather than directly contributing themselves to promotion of the collective welfare (Olson, 1965). As a result of such factors, cooperation breaks down, leaving all of the groups worse off.

To illustrate more clearly how conceptualizing the pre-9/11 intelligence environment as an informational commons might provide analytic traction, I turn now to weaving conceptual insights from that research literature with specific evidence and examples from the 9/11 Report. By so doing, it is possible to identify cognitive, motivational,

and social psychological factors that contributed to breakdowns in cooperative information sharing among the intelligence agencies and other branches of government.

Social and Organizational Barriers to Optimal Information Sharing and Integration in the Pre-9/11 Environment

In optimally functioning information networks, information flows operate so as to assure the rapid, complete, and undistorted diffusion of relevant information to pertinent groups distributed throughout the network (Watts, 1999). Unfortunately, the report concluded that such fluid and efficient dissemination of information was not occurring among the various intelligence agencies. Instead, as the report quaintly phrased it, the "informational arteries" were too often "blocked" (p. 80). The report meticulously documents the many ways in which these "blocked arteries" adversely affected the sharing and integration of vital information pertinent to the gathering terrorist attacks. These barriers reached from the Oval Office and Congress to FBI headquarters and field offices, as well as domestic and foreign intelligence agencies around the globe. As the report ominously notes, the intelligence system was "blinking red" throughout the summer of 2001. Within the various agencies monitoring and assessing the growing threat, unfortunately, information was often stalled, stovepiped, withheld, distorted, or simply ignored. As a result, no single individual or group within these agencies was able to "connect all of the dots," and the summer of 2001 became a summer of missed opportunities.

In a particularly revealing section, the report documents the evolution of what came to be called "The Wall" within the intelligence community. In 1978, Congress had passed the Foreign Intelligence Surveillance Act (FISA) to provide guidelines on the collection and use of intelligence gathered about foreign powers and their agents. In the 1980s and 1990s, prosecutors from the Department of Justice and the FBI evolved informal cooperative understandings regarding the sharing of information collected under FISA when compiling evidence for prosecution of terrorism-related cases. Following the prosecution of Aldrich Ames for espionage in 1994, however, these informal cooperative arrangements were disrupted as concerns regarding the legality of these arrangements arose. As a result, Attorney General Janet Reno issued new guidelines in 1995 to facilitate more effective information sharing between the Department of Justice and the FBI. Tragically, these procedures were "almost immediately misunderstood and misapplied" (National Commission of Terrorist Attacks, 2004, p. 79). These misunderstandings and misapplications, in turn, led to the evolution of a series of "accumulated institutional beliefs

and practices" (p. 79) that undermined or subverted the intended and desired sharing of information. These procedures were widely recognized and even came to be referred to informally within the intelligence community as "The Wall" (p. 79).

As will become evident in the following sections, the metaphor of a wall is particularly apt and generative when trying to unpack the psychological, social, and institutional barriers to optimal information sharing and integration that permeated the U.S. government prior to 9/11.

Social Walls in the Informational Commons: Intergroup Distrust and Wariness

A number of social psychological dynamics contributed to the apparent reluctance among the various intelligence agencies and groups to cooperate fully and voluntarily with each other. There is nothing new, the report noted, about the failure of the FBI and CIA and other agencies to cooperate with each other. As Congress noted in its own investigations and hearings, this general problem has been pervasive and long term. In putting this general problem in broader perspective, however, it should be noted that the breakdowns in interagency cooperation described in the 9/11 Report are but one specific example of a generic and widely recognized problem in intergroup relations. The problem of securing cooperation between interdependent groups has been a central and recurring theme in the study of intergroup relations from its inception (Sherif, 1966; Sumner, 1906). Whether they are minimal groups created in a laboratory setting (Tajfel, 1970), groups of boys at a summer camp (Sherif, Harvey, White, Hood, & Sherif, 1961), or even nation-states (Kahn & Zald, 1990), reciprocal antipathy between groups seems to develop with surprising frequency and alacrity. So pervasive and overdetermined is this phenomenon, in fact, that intergroup antipathy has been viewed as an almost inescapable feature of intergroup contacts wherever they occur (see Brown & Gaertner, 2001, for a comprehensive overview of the current state of our knowledge about this).

Part of the problem is simply that complex bureaucracies are highly differentiated social systems. The deleterious effects of such differentiation reflect two closely related psychological biases. The first is the tendency for individuals to perceive their own in-group and its members in comparatively positive terms (as being, for instance, more honest, cooperative, fair, and trustworthy). This bias is termed, aptly enough, "in-group bias" (Brewer, 1979). The second is a tendency for individuals to devaluate the attributes, values, and practices of out-groups and their members—a process known as "out-group derogation." In-group bias

and out-group derogation in turn have been shown to reflect a variety of basic cognitive processes that detrimentally accentuate perceived differences between individuals from different groups (Brewer, 1979, 1981; Sedikides, Schopler, & Insko, 1998). Even the mere categorization of individuals into arbitrary and transient social groupings is sometimes sufficient to create "relational fault lines" that impede the development and stability of cooperative intergroup relations (Brewer, 1979; Kramer & Brewer, 1984; Tajfel, 1970).

In addition to these basic cognitive processes, recent research documents the negative role affective processes play in the development and maintenance of intergroup antipathies (Mackie & Smith, 2002). When such emotions become connected to cognitive constructs such as loyalty and fidelity to the group, cooperation can be especially hard to initiate. Loyalty to the in-group often takes on moralistic overtones, especially when they are linked to individuals' sense of group identity (Barber, 1983; Brewer, 1981; Kramer, Pommerenke, & Newton, 1993). As March (1994) observed in this regard, "Decision makers can violate a logic of consequences and be considered stupid or naive, but if they violate the moral obligations of identity, they will be condemned as lacking in elementary virtue" (p. 65).

Diffusion of Responsibility in the Informational Commons

Within institutions, diffusion of responsibility arises when individuals or groups decide an issue or task, while important, is not their problem or priority. The problem of diffusion of responsibility has long been recognized by social scientists who study cooperation within groups and organizations (e.g., Hackman, 2004; Latane & Darley, 1970; Olson, 1965). Its roots are motivational as well as cognitive. Avoiding responsibility for a problem or task can be especially tempting when that problem or task is perceived as enormously difficult or intractable. Within most institutions, there exist proverbial "hot potatoes" that no one wishes to handle. As the 9/11 Report documented, terrorism was one such hot potato being passed around Washington in the summer of 2001—it was perceived as so hot, in fact, that numerous groups and agencies were happy to toss it to others as quickly as possible. The report noted, for example, that "Congress had a distinct tendency to push questions of emerging national security threats off its own plate, leaving them for others to consider" (p. 107). The report went on to observe that Congress even "asked outside commissions to do the work that arguably was at the heart of its own oversight responsibilities" (p. 107).

The 9/11 Report further documented that terrorist-related tasks and problems were often pushed off other plates as well. For example, in

January 2000 analysts within the National Security Agency (NSA) identified individuals who they thought might be part of "an operational [terrorist] cadre" and that "something nefarious might be afoot" with them (p. 353). However, the agency overall "did not think *its* job was to research these identities" (p. 353, emphasis added). Instead, it saw itself as "an agency to *support intelligence consumers*" (p. 353, emphasis added). This was a politically deft framing of its mandate. As a consequence, however, the NSA failed to pursue the matter further.

Diffusion of responsibility in-groups can be exacerbated by the "missing hero" problem (Platt, 1973; Schelling, 1960): even when all of the decision makers in a collective recognize that a problem exists, no individual wants to step forward and bear the costs and political risks associated with trying to solve it. To this point, the 9/11 Report noted that the various intelligence agencies in the pre-9/11 environment functioned "like a set of specialists in a hospital, each ordering tests, looking for symptoms, and prescribing medications. *What [was] missing is the attending physician who makes sure they work as a team*" (p. 353, emphasis added). The 9/11 Report further noted, as just one example of this tendency, that, "While [George] Tenet was clearly the leader of the CIA, the intelligence community's confederated structure left open the question of who really was in charge of the entire U.S. intelligence effort" (p. 93).

In fairness to individual decision makers within these various intelligence agencies, there were understandable reasons for remaining missing heroes: there were, in fact, few perceived (and arguably even real) incentives within these agencies for anyone to step up to the plate. As the 9/11 commissioners acknowledged, "Counter-terrorism and counter-intelligence work, often involving lengthy intelligence investigations that might never have positive or quantifiable results, *was not career-enhancing*" (p. 74, emphasis added).

Selective Information Transmission in the Pre-9/11 Environment

Even when individuals from one group or agency are perfectly willing to share information with individuals working in other groups or agencies, there are several cognitive biases that can degrade the quality of the information exchange process. Research has shown, for example, that individuals are more likely to discuss shared knowledge (aspects of what they know is part of their common knowledge) compared to unshared information (their distinctive or unique knowledge). This tendency contributes to what has been called the "common knowledge effect" (see Strasser, 1999, for a review). Because of this common knowledge effect, when uncommon information does happen to be introduced into a discussion the discussion of that information tends to be

more cursory or muted. In short, distinctive and potentially valuable information tends to be undervalued and utilized.

Other related research has shown that group members often tailor their communications to suit what they think or believe the targets of their communication efforts want to hear, need to hear, or can readily comprehend (Manis, Cornell, & Moore, 1974). Higgins (1999) characterizes this general process as "audience tuning." Because of audience tuning, information tends to be only selectively presented. Along related lines, Burt and Knez (1995) demonstrated that information tends to diffuse within networks so that information consistent with what communicators think their targets want to hear gets *amplified*, whereas expectation-inconsistent or discrepant information tends to be *dampened* or dropped.

Inhibiting Effects of Organizational Roles

Even when individual decision makers are personally motivated themselves and perfectly inclined to share information, they may nonetheless remain reluctant to do so because of perceived role requirements and constraints. Role-related expectations can dictate, for instance, what decision makers construe as appropriate or normative conduct for people in those roles (Lieberman, 1956). Under the right circumstances, to be sure, role-related expectations can actually facilitate effective cooperation and coordination (e.g., Barber, 1983; Feldman, 1989; Meyerson, Weick, & Kramer, 1996; Weick & Roberts, 1993). In other instances, however, such expectations can impede effective action, especially when there is ambiguity or uncertainty regarding appropriate role prescriptions and boundaries, perceived role conflicts or constraints exist, and/or perceived role mandates conflict with personal values or decision preferences (Kahn et al., 1964).

In the case of 9/11 intelligence, moreover, the leadership of the FBI, wittingly or not, may have aided and abetted the process of institutionalizing such counterproductive role constraints by cautioning agents that "too much information sharing could be a *career stopper*" (p. 79, emphasis added). Such cautions could hardly help but have a chilling effect on individuals' willingness to engage in extensive cooperative initiatives on their own. In fact, individuals who did so were often sanctioned for their efforts (cf., Weiss, 2003).

Partition Focus in the Informational Commons

As the 9/11 Report emphasized, successfully anticipating, discovering, and averting terrorists' plans requires the ability to integrate "all-source" intelligence—in other words, success hinges on the ability

to "connect the dots" (p. 416). Unfortunately, complex bureaucracies often evolve a variety of mechanisms that tend to isolate the dots.

Heath and Staudenmayer (2000) identified one important reason why there might be a tendency toward informational fragmentation and compartmentalization. In their analysis of how groups and organizations attempt to solve information management problems, they noted that in order to successfully complete complex organizational tasks, a common strategy is for decision makers to decompose or divide those tasks into smaller, more manageable "chunks," with different groups taking on responsibility for individual chunks. In much the same way organizations structurally differentiate to solve problems of complexity, individual decision makers cognitively differentiate to better manage cognitive load.

In observing how this process typically unfolds, Heath and Staudenmayer (2000) argued and found that decision makers often allocate a disproportionate share of their limited attention to decomposing or partitioning the task. They termed this tendency or bias "partition focus." Partition focus may be an especially attractive solution in complex bureaucracies for several reasons: First, it seems like a rational way of decomposing complex tasks. Each intelligence agency can readily discern what is its appropriate piece of the intelligence puzzle or task (e.g., domestic versus foreign, human versus electronic). Thus, partitioning seems to provide a relatively efficient, logical, and conflict-free way of allocating tasks among competing groups. Second, task partitioning may appeal to agencies' sense of fairness—each agency ends up getting what it perceives as a fair share of coveted tasks (and, presumably, garners an equally fair share of the resources allocated to complete such tasks).

Despite these advantages, partition focus has several drawbacks: First, as the 9/11 Report found, especially undesirable tasks or assignments viewed as political hot potatoes may be avoided. Second, partition focus can lead to the neglect or loss of crucial information. No one notices, for example, what information gets lost in the "interstitial spaces" between functional partitions. Along precisely the same lines, the 9/11 Report concluded that, "Often the handoffs of information were lost across the divide separating the foreign and domestic agencies of the government" (p. 353). The 9/11 Report concluded, in fact, that as a result of such factors, "The September 11 attacks fell into the void between the foreign and domestic threats. The foreign intelligence agencies were watching overseas, [while] the domestic agencies were waiting for evidence of a domestic threat from sleeper cells within

the United States. *No one was looking for a foreign threat to domestic targets*" (p. 263, emphasis added).

Partition focus can be an especially insidious problem when the partitioning logic reflects idiosyncratic factors that no longer "map" onto current realities or needs (e.g., organizational divisions or norms that may no longer be relevant yet have the weight of tradition, precedent, and history behind them). For example, although the separation of national security threats as a function of their domestic versus foreign origins may have made considerable sense during the Second World War and again during the Cold War, these distinctions may no longer make sense in the global commons.

Uncommon Categorization and Information Partitioning

If the common knowledge effect constitutes one general cognitive barrier to optimal information sharing, "uncommon categorization" represents another. The effective sharing and integration of information among agencies is facilitated when that information is coded or categorized in similar terms, obviating the need for translation or recategorization. In contrast, information sharing or exchange can be impeded by differences in how such information is initially categorized or coded by different groups. As the 9/11 Report noted, this problem of distinctive or uncommon categorization was prevalent across the various intelligence agencies. Each agency retained its own distinctive way of "parsing" the world, employing its own categorical distinctions and using its own vocabulary. For example, the 9/11 Report noted that the CIA tended to play a "zone defense" in dividing up the threat world. As a result, it tended to concentrate on *where*, and not *who* (p. 268). Its emphasis was thus on tracking and assessing *regional* flashpoints and security threats. In contrast, the FBI tended to adopt a "man-to-man" approach in its day-to-day intelligence operations. This approach led agents to focus on tracking specific individuals who were thought to pose terrorist threats.

One unforeseen consequence of such differences, the 9/11 Report concluded, was that significant opportunities to pool information regarding individual terrorist suspects or cells moving across zones were missed. This decreased the likelihood of detecting ominous patterns of terrorist associations and movements. "Had its information been shared with the FBI," the report suggested, "a combination of the CIA's zone defense and the FBI's man-to-man approach might have been productive" (p. 268). Unfortunately, no such combination or effective integration ever occurred.

Institutional (In) Attention and Memory Deficits
in the Pre-9/11 Environment

The complex institutional dynamics that contributed to the failure among agencies to share vital intelligence information had their origins, ironically, in structural arrangements that were designed to avoid such problems. Structural differentiation, both vertical and horizontal, is one of the most commonly used mechanisms institutional decision makers use to manage informational complexity (Simon, 1981). Unfortunately, one consequence of such differentiation is that critical information—in the form of relevant knowledge and expertise—is necessarily distributed across organizational units. This distribution of knowledge creates what is termed a "transactive memory system" (Moreland, 1999).

Previous research has identified a number of benefits associated with transactive memory systems, especially at the dyadic and small group levels. For instance, the cognitive load for individual decision makers within such a system is reduced because different individuals can remember different information. Moreover, the overall memory system is enhanced because distinctive but complementary forms of expertise can be distributed among the interdependent decision makers. For example, a marital relationship in which the husband manages knowledge pertaining to all of the family's medical needs and the wife manages knowledge related to the couple's financial affairs enables each to off-load a substantial set of data that otherwise would have to be stored in memory.

Securing the benefits associated with transactive memory systems becomes more problematic, however, in large, complex bureaucracies, where information is necessarily distributed across multiple groups with diverse missions, histories, and priorities—as was the case with the intelligence communities processing 9/11-related data. In particular, the danger exists that critical information will be isolated or forgotten (i.e., proverbially speaking, the left hand will not know what the right hand is doing; even more seriously, the left hand may not realize what the right hand *is not* doing). As the 9/11 Report documented, this problem existed with respect to numerous pieces of critical evidence pertaining to the developing of 9/11 plots. The essential intelligence units were not transacting effectively. Instead, critical information was often "stovepiped" within agencies (p. 353). As a consequence, "analysis was not pooled" (p. 353).

The report identified several reasons for these problems. In some instances, they were surprisingly and distressingly banal in their origins. For example, the FBI field offices sometimes had only typewritten

files and field notes, making dissemination of information clumsy, slow, and expensive. Information encoded in this primitive manner was also harder to store effectively, collate with other information, or retrieve readily when needed.

Within the various intelligence agencies, moreover, attentional resources throughout this period were stretched extraordinarily thin. There were simply too many competing claims on agents' and analysts' attention, leaving information sitting and waiting to be processed. Metaphorically speaking, vital information was stalled in the organization's short-term memory and never made it to long-term storage. In other cases, information was hurriedly passed on. Unfortunately, it was then forgotten with little follow-up: once moved off an agent's desk, information that was "out of sight" often became "out of mind." In yet other instances, the 9/11 Report noted, "Information was not shared sometimes inadvertently or because of legal misunderstandings" (p. 353).

As this analysis reveals, both human and systemic factors contributed to the suboptimal information sharing and integration uncovered by the 9/11 commissioners. A first reaction to an analysis of this sort might be to discount the causal potency of these psychological processes. Given the enormous stakes involved, one might presume that groups and agencies composed of intelligent, dedicated individuals who would confront and creatively resolve whatever problems of cooperation and coordination were necessary to get their work done. There were, after all, compelling incentives for getting it all right: nothing less than the security of the homeland was at stake. Unfortunately, neither the extensive commons dilemma research literature nor the long history of examples that motivated it inspires much optimism in this regard. The tragedy of the commons, after all, is a parable about how difficult it is to slow the march of folly even when all of the participants involved are fully cognizant of just where the march is leading them. The tragedy of the commons remains a compelling metaphor in the social sciences for good reason.

DISCUSSION

Whenever one tries to assess the vitality and success of a multidisciplinary research enterprise, such as the now decades-long research by many social scientists studying cooperation and the commons, there is always the question as to whether the glass is half-full or half-empty when it comes to the extent of our progress. On the one hand, there is a great deal of recent research that leaves one far from sanguine regarding the prospects for solving the tragedies of the commons unfolding on today's

global stage. It has proved difficult to learn from past mistakes and equally hard, it seems, to avoid making new ones. Organizational memories tend to be short, malleable, and often self-serving. The lessons of the past tend to be either forgotten or distorted over time (Neustadt & May, 1986). Even when organizational surprises become technically predictable, the decision makers who confront them may fail to take them seriously enough or engage and/or may fail to take adequate and timely preemptive actions to avert them (Bazerman & Watkins, 2004). Organizational fixes, when they do finally arrive, often tend to be too little and too late (Perrow, 1984; Weick, 1990). Moreover, complex systems that involve multiple, sequential forms of interdependence are prone to unraveling because even a single weak link can topple an otherwise artfully constructed tower (Simon, 1981; Thompson, 1967). When things unravel in complex organizations, they often unravel in the wrong (least expected) places at the wrong (least expected) times and involve the wrong (least expected) individuals (Bendor, 1985; Perrow, 1984; Weick, 1993).

On the other hand, the glass is not entirely empty. We can derive some optimism from the fact that our knowledge regarding the number of ways in which things can go wrong within complex organizations and institutions has increased over the years. Failures may mount up, but so also does learning from those failures. Each disaster invites postmortem, out of which comes a measured kind of wisdom about what went wrong, when and where it went wrong, and why it went wrong (e.g., Carroll, Rudolph, & Hatakenaka, 2002; Dorner, 1989; Vaugh, 1996). We have, in addition, richer and more multivariate theories to help us understand how to prevent system breakdowns and disasters (Bendor, 1985; March, 1999; Sagan, 1993; Weick, 1990, 1993). Moreover, our knowledge about the organizational bases of creativity and innovation has grown markedly (Hargadon, 2002). Equally importantly, we possess today better knowledge regarding how to more effectively change large bureaucracies in a desired direction (Kelman, 2005).

Along these lines, when trying to think about specific mechanisms for improving the prospects for improved cooperation, we can gain some insight from recent theory and research on the antecedents and consequences of social capital within and between institutions (Putnam, 2000). Social capital arises from the "networks of strong, cross-cutting personal relationships that develop over time [providing] a basis for trust, cooperation, and collective action" among interdependent actors (Jacobs, 1965, p. 13). Recently, Putnam (2000) drew an important distinction between two useful forms of social capital found within institutional environments, each of which can contribute to enhanced levels of cooperation.

The first form of capital, which Putnam terms "bonding social capital," is good for "undergirding specific reciprocity and mobilizing solidarity" (Putnam, 2000, p. 22) *within* groups or agencies. Thus, bonding social capital helps interdependent decision makers inside an agency group or an agency work together more effectively as a team. Recent advances in our understanding of the determinants of effective team performance (e.g., Hackman, 2004) provide a foundation for thinking about how to build and sustain such capital.

The second form of social capital, which Putnam characterizes as "bridging social capital," facilitates cooperation *between* groups or agencies by building on "broader identities and reciprocity" (Putnam, 2000, p. 23). Social psychologists have articulated powerful frameworks for creating this form of social capital (see, e.g., Brewer & Pierce, 2005; Gaertner et al., 1999; Kramer & Carnevale, 2001; Putnam, 2000, for suggestive literature reviews). Along these lines, and bringing my own work with Marilynn full circle, I have argued elsewhere that collectivizing forms of organizational identity can play a vital role in the emergence of such capital (Kramer, 2009).

Another fruitful line of theoretical inquiry and empirical advance relevant to the present chapter is the recent work on trust repair (reviewed in Kramer & Lewicki, 2010). To the extent low levels of cooperation between agencies and groups are driven by histories of intense, mutual distrust and suspicion, a number of constructive approaches can be taken for repairing such damaged trust. These include such remedies as explanations, apologies, reparations, and penance, as well as various structural solutions.

Viewed in aggregate, then, we can point to an impressive accumulation of theoretical insights and empirical understandings regarding the kinds of organizational processes and structures that support the emergence of cooperation (Weber & Messick, 2004). However, more research clearly remains to be done. As Meadows, Randers, and Meadows (2004) document in their 30-year assessment of progress on limiting the devastation of the global commons, we have miles to go before we can sleep.

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15

MORAL DISENGAGEMENT AND MORALITY SHIFTING IN THE CONTEXT OF COLLECTIVE VIOLENCE

Emanuele Castano

Summer in New York can be scorching. On a bad day, the heat coupled with high humidity can make moving around the city intolerable, and me irascible. The summer of 2003 was fairly typical in this regard, and having just relocated to New York from England, I was particularly sensitive to the sweaty conditions in our East Village apartment. So, perhaps, the irritating discussion that I had with my girlfriend might be attributed to that. It started when she pointed out an article that recently appeared in an American magazine, discussing World War II concentration camps in Italy. We did not have concentration camps, I protested. The exchange quickly escalated into an argument, and I was left upset, angry, and ashamed.

The fact that by then I had spent a good 10 years investigating people's reaction to threats to their collective self, at the moment, did not help. The next day, however, I had to laugh at myself. I had reacted in precisely the same way in which participants in my studies do when information that threatens the image of the group to which they belong, particularly their moral status, is presented to them. Under these conditions, research has shown that we experience negative emotions such as guilt or shame, we feel outraged, we deny the very facts, or attempt to do so anyway, we re-conceptualize, we argue about labels, categories, and the meaning of the events, we try to put them in a different context,

and we compare them with others and "worse" things that others have done (the others being, ideally, our very victims, or the group of whoever is presenting this information to us). I asked my girlfriend, "How dare you (an American) raise the issue of these teeny tiny camps when you have dropped atomic bombs over two cities?"

I devote this chapter to a discussion, from a social psychological perspective, of what people do when they are confronted with information that threatens the image of their group, and thus the self. I begin by discussing the concept of social identity and how they link the individual and the group. I then go on to discuss the concept of moral disengagement, which I define as the process through which individuals attenuate or eliminate a threat to their moral self. Finally, I present research that has investigated the use of moral disengagement strategies in the context of collective violence, as well as a new line of research on morality shifting.

SOCIAL IDENTITIES AND COLLECTIVE EMOTIONS

What is necessary for people to have a sense of belonging to their nation? To reach optimal distinctiveness (Brewer, 1991), of course, and to perceive their nation as high in entitativity (Castano, Yzerbyt, & Bourguignon, 2003), but also to forget many of the events of their country's history (Renan, 1882). Since the nation is an imagined community (Anderson, 1991), the selective forgetting of negative events is part and parcel of the formation and maintenance of a national identity. Suspecting myself of being the victim of collective forgetting, I resorted to Wikipedia to find out whether Italy had concentration camps during World War II. It did. I never read about them in our history books, of course. In any case, in our books, Italy goes from being the victim of a dictator (Mussolini) to a heroic insurgent against the Nazis. Somehow, the remarkable cleansing operation of our very questionable history also worked well outside of our borders. To my delight, and horror, many of my American students think that Italy was an ally of the United States throughout World War II. We were the good guys!

The fact that I felt badly and reacted defensively to the information threatening the moral image of my national group is because part of my sense of self is linked to the image of the groups to which I belong. In other words, my self-esteem is not only contingent upon my success and failures as an individual. The emotions that I experience are not caused solely by events that impact me as an individual. They both also depend on the vicissitudes and standing of the social groups to which I belong.

In his seminal work, Henri Tajfel (1978) defines social identity as "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). It is thus not surprising that the highs and lows of those groups become our highs and lows. And when the lows are about morality, they are particularly threatening. Although social psychological research has shown that individuals tend to organize social judgments about social groups along the dimensions of competence and sociability (e.g., Fiske, Cuddy, Glick, & Xu, 2002; Judd, James-Hawkins, Yzerbyt, & Kashima, 2005), recent work shows that the evaluation of the in-group focuses primarily on the domain of morality (Leach, Ellemers, & Barreto, 2007). Therefore, it is expected that the immoral behavior of the in-group poses a threat to the image of the in-group, and thus to group members' identities.

Consistent with social identity theory, research has also demonstrated that individuals can experience emotions on behalf of their in-group (Mackie & Smith, 2002). Dumont, Yzerbyt, Wigboldus, and Gordjin (2003), for instance, showed that when people perceive victims of harmful behavior as belonging to their group, they feel more anger, and this anger increases their intentions to ameliorate the situation. In a context in which the in-group is not the victim, but the perpetrator, the very action attributed to the in-group may be denied (Cohen, 2001).

When denial is not possible, individuals are forced to face the reality of their misdeeds. Doosje, Branscombe, Spears, and Manstead (1998, Study 2) showed that reminding Dutch citizens of the brutal consequences of their colonization of Indonesia led to an increase of guilt, as compared with those who were given a more lenient historical narrative of such a colonization. And the increased guilt predicted a willingness to provide reparations. Therefore, in addition to being concerned by a loss of moral standing, when confronted with in-group atrocities, individuals may engage in psychological strategies to avoid the aversive emotions such as guilt and shame. What are these strategies?

MORAL DISENGAGEMENT

Although far less humid, Bosnia-Herzegovina's summer can be as scorching as New York's. The summer of 2007 certainly was, particularly in Sarajevo, where I was participating in the meeting of the International Association of Genocide Scholars. Every summer since the end of the Bosnian war, a commemoration had been held for the anniversary of the Srebrenica massacre, during which it is estimated that 8,000 Muslim men were executed by Serbian military forces in the summer of 1995. That night, my friend Sabina Cehajic, a Bosnian social psychologist, translated the postings by laypeople on the website of a

Serbian newspaper. In a typical posting, the author would admit that the Srebrenica massacre happened (after initial denial, most Serbians today acknowledge that it happened*), but quickly shift the attention to the suffering endured by Serbs during the wars in the 1990s, World War II, World War I, as well as many other battles and wars back to the 1389 battle against the Turks that is so central to Serbian national mythology (Anzulovic, 1999). In other words, amid postings that asked for an apology and expressed shame, there were advantageous comparisons of this sort that seemed to be the moral disengagement strategy of choice.

Moral disengagement is the process through which we free ourselves from the negative consequences, primarily, but not exclusively, of a psychological nature (e.g., distress, shame, loss of reputation) that would likely follow should we acknowledge certain negative actions that we have committed (Bandura, 1999). Amid these strategies are euphemistic labeling (e.g., "collateral damage"), moral justification ("it is a battle against evil"), and dehumanization. The latter has received quite a lot of attention in psychological literature, and its function is well described by psychologist Albert Bandura. He argues that perceiving another person as human activates empathetic reactions that would make it difficult to mistreat him or her without risking personal distress, but that once the other is dehumanized, such self-sanctions for mistreatment can be disengaged (Bandura, 1990).

Primo Levi, Italian novelist and concentration camp survivor, writes about the same processes when describing his personal experience. According to Levi, the degradation imposed on the prisoners was not a matter of cruelty, but a necessary process: for those operating the gas chambers not to be overwhelmed by distress, victims had to be reduced to sub-human objects beforehand (Levi, 1987).

Dehumanization as Moral Disengagement Strategy

Several years ago, my colleagues and I began researching the use of moral disengagement strategies, with a specific focus on their use in the context of collective violence. We first focused on dehumanization, and we investigated whether in-group responsibility for the suffering of

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* In March 2010, the Serbian Parliament approved a resolution by a narrow majority (127 out of 250 lawmakers) to issue an apology to the Srebrenica victims. While recognizing it as a positive step, critics point out that the events are reduced to a crime, as opposed to an act of genocide, and that the language used aims at minimizing Serbian's responsibility: "The Srebrenica Declaration sharply condemns the crime committed against the Bosnian population in Srebrenica in July 1995, expresses condolences to families of victims and extends apologies to them for lack of measures that could have prevented the tragedy" (Government of the Republic of Serbia, 2010).

out-group members would lead to the paradoxical effect of their greater dehumanization. Could it be that we add insult to injury, and in order to safeguard our psychological equanimity we come to perceive the victims of the in-group's actions as less than human?

In a first study, we reasoned that British citizens should feel threatened by the information depicting the British colonization of the Australian continent as having disastrous consequences for the aboriginal population. And that, if this was the case, they may be motivated to perceive Australian Aborigines as less human. Because in low-conflict situations few people express blatant dehumanization of others, to measure the perception of humanness of Australian Aborigines among British participants we turned to an emerging body of social psychological literature on *emotional infrahumanization*.

At the same time that I was investigating phenomena such as the black sheep effect, in the office next door to the psychology department at the Université catholique de Louvain, Jacques-Philippe Leyens, Maria Paola Paladino, and their colleagues were laying the groundwork for what became a very prolific and inspiring line of research on infrahumanization (Leyens et al., 2000). They began by conducting a series of normative studies to investigate what is perceived as being uniquely human. Amid the usual suspects (language, intelligence), it was found that certain emotions, called secondary emotions (e.g., love, shame, guilt, or hope), are attributed to humans to a much greater extent than to animals, whereas other emotions, called primary emotions (e.g., pleasure, anger, fear, and attraction), are seen as characterizing humans and animals alike (Demoulin et al., 2004).

"We love but they 'love,' we grieve but they 'grieve,'" writes philosopher Raymond Gaita (2000, p. 78), describing people's tendency to consider the inner life of people belonging to a different ethnic group as lacking the same depth that characterizes our own inner life. This taxonomy has since been used in a variety of studies which yielded support to the original conjecture, namely that out-group members are seen as less likely to experience secondary emotions, that is, the emotions that are uniquely human (Leyens et al., 2000).* It is this measure of dehumanization that we used to investigate the effects of learning

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* In a recent review, Haslam (2006) differentiates between the denial of uniquely human characteristics (more sophisticated, acquired features) and of human nature (innate, shared with other living creatures) and proposes that they lead, respectively, to a bestialization and a reduction of the other to an automaton. Both strategies can be used to exclude a group from membership in the human, moral community (e.g., Opotow, 1990), but the former seems to be particularly applicable to inter-group, and specifically inter-ethnic conflicts (Haslam, 2006).

about atrocities committed by in-group members towards members of another group.

In a first study, we assigned participants, U.K. citizens, to either a high-impact condition, in which they learned that the arrival of the British in Australia had a dramatic impact on the life of Aborigines (causing a sharp decrease in their population due to military operations by the British as well as diseases introduced by the British settlers) or to a low-impact condition, in which a decline in the number of Aborigines happened shortly after the arrival of the British, but their number subsequently stabilized to a level similar to that prior to the arrival. After reading one of these two accounts, participants indicated to what extent they estimated the capacity of Aborigines to feel a series of emotions. The emotions presented to them varied in the degree to which they were considered uniquely human (as derived from previous normative studies).

In line with the hypothesis that out-groups are infrahumanized, in the low-impact condition, the attribution to the Aborigines of the capability to experience a specific emotion was lower for uniquely human emotions than for emotions shared with animals. But this tendency was magnified in the high-impact condition. In other words, compared to participants in the low-impact condition, those participants who learned that the British colonizers decimated the Aborigines were more inclined to see them as not quite human (Castano & Giner-Sorolla, 2006, Study 2). Two studies yielded further evidence in support of our hypothesis. One study was a conceptual replication, in which white Americans learned about the effects of the arrival of the white man in North America on the Native American population.[*] In this case, we observed an enhanced infra-humanization of Native Americans among those participants who had been confronted with a narrative that stressed the quasi-extermination of the Native Americans by the white newcomers (Castano & Giner-Sorolla, 2006, Study 3). Another study tested this hypothesis in the context of an alleged science fiction movie, in which the in-group was humans and the out-group aliens. In this case too, in-group responsibility for the death of a large number of aliens (as manipulated, or as subjectively perceived by the participants) led to greater infra-humanization of the aliens (Castano & Giner-Sorolla, 2006, Study 1).

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[*] Participants were all Anglo-Saxon, Caucasian, and born in the United States, that is, people who, by virtue of their national identification, were expected to feel a connection with the original settlers (see Abdel-Nour 2003, for a discussion of such a connection from a philosophical point of view).

This pattern of findings was replicated in the context of the relations between Mapuche Indians and nonindigenous Chileans, by Cehajic, Brow, and Gonzalez (2009, Study 1). Across two conditions, these authors varied the level of responsibility of the nonindigenous Chileans for the mistreatment of the Mapuche Indians in the 19th century. In the *individual responsibility* condition, only few members of the in-group (nonindigenous Chileans) were seen to be responsible for the plight inflicted on the Mapuche, whereas in the *in-group responsibility* condition, the entire in-group was made to seem responsible. Participants then rated Mapuche people on how likely they are to feel 16 emotions, among which were primary and secondary emotions. Paralleling the findings reported earlier, in-group collective responsibility resulted in the attribution of fewer secondary emotions, but not primary emotions, to the Mapuches.

Moderators of Moral Disengagement

In the evidence reviewed earlier, the implicit, yet critical factor for the emergence of moral disengagement in the context of in-group responsibility is that participants share a collective identity with the perpetrator. The presence of this shared social identity, and the strength of the identification of the individual with the group, has long been considered an important moderator of group processes and intergroup relations (Brewer, 1979, 1999; Tajfel & Turner, 1979; Turner, Hogg, Oakes, Reicher, & Wetherell, 1987). For instance, it has been shown to moderate the perception of homogeneity and entitativity (Castano & Yzerbyt, 1998; Castano et al., 2003), the black sheep effect (Castano, Paladino, Coull, & Yzerbyt, 2002), and the in-group overexclusion effect (Castano, Yzerbyt, Bourguignon, & Seron, 2002; for a review, see Yzerbyt, Castano, Leyens, & Paladino, 2000).

Accordingly, in two of the studies reviewed above (Castano & Giner-Sorolla, 2006; Studies 2 and 3), we also measured the extent to which participants identified with their in-group, expecting that the higher the identification, the more threatening the distressing information, and thus the greater the moral disengagement. Contrary to our expectations, however, identification did not moderate the infra-humanization of victims. One possibility is that our measure of identification did not adequately distinguish between two different dimensions of identification, namely attachment and glorification (Roccas, Klar, & Liviatan, 2006). These two facets map into the distinction between patriotism and nationalism, (e.g., Kosterman & Feshbach, 1989; Staub, 1997). Although patriotism can be considered a healthy attachment to one's nation, nationalism is an uncritical aggrandizing of the in-group at

the expense of other groups, which are perceived as inferior, and as a consequence often discriminated against (see also Brewer, 1999). In the words of George Orwell, "A nationalist is one who thinks solely, or mainly, in terms of competitive prestige" (1945).

Using this distinction, Roccas et al. (2006) conducted a study among Israelis and found that in-group attachment was negatively related to justificatory processes for Israeli mistreatments of Palestinians and positively to self-reported guilt. In spite of being correlated with attachment, in-group glorification showed the opposite relationship to both of these variables. The more in-group glorification, the more justification of the wrongdoings and the less guilt. The results by Roccas et al. (2006) are important inasmuch as their measure of cognitive exoneration for the wrongdoings can be understood as a moral disengagement strategy. They thus provide some preliminary evidence that in-group wrongdoings are assessed differently by individuals who differ in their level of glorification of the in-group, albeit not by those who differ in their level of attachment to it.

In our next round of studies, focusing on the ongoing war in Iraq (Leidner, Castano, Zaiser, & Giner-Sorolla, 2010), we thus used attachment and glorification, instead of our original, cruder measure of identification. In a first study, we presented our participants with an alleged newspaper article which discussed a case very similar to the Abu-Ghraib scandal, in which U.S. personnel (*versus* Iraqi themselves, in another experimental condition), were responsible for the torturing and eventual death of several Iraqi prisoners. After participants read the article, we measured their attachment to and glorification of the United States, and we asked them to estimate to what extent the family members of the victims experienced a series of negative emotions. Furthermore, we measured explicit dehumanization of the victims group, and asked participants about punishment of the perpetrators and reparations to the victims. The goal was to empirically test a model in which moral disengagement strategies (minimizing the negative emotions experienced by the victims' family members and dehumanizing them) mediate the effect of in-group identification on support for different forms of justice (punishment and reparations; Leidner et al., 2010, Study 1).

Two main findings emerged. First, the identity of the perpetrator (in-group vs. out-group) and the level of glorification interact in predicting support for justice. Although in-group glorification did not predict justice in the out-group-perpetrator condition, it did in the in-group-perpetrator condition; the higher the glorification, the lesser the justice offered. Second, the perpetrator makes a difference in the

relationship between the moral disengagement variables and justice. When the perpetrator is the out-group, the relationship between the variables is not systematic, that is, the covariance between the variables cannot be modeled in a meaningful manner. When the perpetrator is the in-group, however, a coherent and meaningful model representing the psychological process emerges, which supports the mediating role of moral disengagement strategies in the relationship between in-group glorification and support for retributive and restorative justice. Even when controlling for in-group attachment and political affiliation, in-group glorification affects the use of two moral disengagement strategies, that is, the higher the glorification, the greater the explicit dehumanization of the victims and the downplaying of the suffering of the victims' family members. In turn, explicit dehumanization and emotional minimization predict justice negatively (punishment of the perpetrators and reparation for the victims).

This pattern of findings was replicated in two other studies. In one, we confirmed that the results for the out-group condition were not due to the fact that the victims and perpetrators belonged to the same out-group (Iraqis), and we controlled for social dominance orientation (Leidner et al., 2010, Study 2). A third study controlled for right wing authoritarianism was conducted in the United Kingdom instead of the United States and thus had British military as the perpetrator (no out-group condition was included in this study (Leidner et al., 2010, Study 3).

MORALITY SHIFTING

Alden Pyle is a clean-cut, sharp, and serious CIA operative in a large Vietnamese town. He and British journalist Thomas Fowler are the two main characters in Graham Greene's *The Quiet American* (1956). After the town center is torn apart by a bomb that leaves scores of Vietnamese dead, Pyle conveys to Fowler that he is behind the bombing, and that he sees it as a necessary and morally appropriate thing to do in order to change the course of history.

The exchange between the two characters is powerful, for it compels the reader to consider the important question of whether it is ever right to kill innocent people. If a "greater good" is invoked as justification, what is this good and who defines it? For Pyle, the greater good is stopping communists in Asia, and preserving Western, particularly U.S., dominance. It is hard to side with Pyle. Yet, the exchange between Pyle and Fowler illustrates that morality, it turns out, is less of an absolute than we would like to think. Pyle, in fact, believes he is acting morally.

Is he deluded, cynical, or is he a psychopath? Or is he operating from within a different morality system?

Morality, as shown in theory and research, is best understood in the plural (Kohlberg, 1969; Shweder, 1982; Turiel, 1983). In psychology, this view is represented, among others, in the work of Jonathan Haidt and colleagues. Haidt and Graham (2007) argue that people's sense of morality is organized around different moral foundations: harm, fairness, loyalty, and authority.* *Harm* demands that people do not harm others, and *fairness* commands people to treat others fairly and justly. These two foundations are considered intuitive (Haidt & Graham, 2007) and the standard, default morality foundations in Western societies, where they are considered most important (Kohlberg, 1969; Miller, 2006; Shweder, 1982; Turiel, 1983) and are most frequently used (Smetana, Schlagman, & Adams, 1993). *Loyalty* morals reflect a tendency to see something as moral to the extent that it benefits one's in-group. Finally, the moral foundation of *authority* consists of values related to subordination, such as duty, obedience, and conformity to in-group norms.

So, is the killing of innocent people ever justified? The research reviewed earlier shows that people who are functioning from within a morality principle other than harm or fairness may be able to justify, psychologically, the killing of others in the name of the in-group, an authority figure, or an ideal.†

Bernhard Leidner and I (Leidner & Castano, 2009) reasoned that when people detect violations of internalized moral norms committed by fellow in-group members, the accessibility of moral principles may shift; *loyalty* and *authority*, normally less accessible than *harm* and *fairness* in our society, become more accessible, and thus more likely to affect our judgment and behavior. As a consequence, the mistreatment or killing of others by our in-group is not immoral, and it may even become a moral imperative (Reicher, Haslam, & Rath, 2008). We have some preliminary evidence which supports it.

In a first study, we used a manipulation similar to that used in the studies presented above (Leidner et al., 2010), whereby participants read about atrocities committed by either their in-group or an out-group (U.S. military personnel vs. Australian military personnel).

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* The model also includes a fifth moral foundation, purity, but in our empirical work we do not included it for two reasons. First, in our preliminary attempts to measure it using the Moral Foundations Questionnaire (MFQ; Haidt & Graham, 2007), it showed very low internal consistency. Second, it is not of much relevance to the context in which we investigated the morality shifting process.

† The "ideal" maps, to a certain extent, what some call Divinity, and Haidt and colleagues call purity or sanctity.

Subsequently, in an apparently unrelated study, they are asked to fill out a modified version of the MFQ (Haidt & Graham, 2007), which measures the importance, to the participants, of the five morality principles (*harm, fairness, in-group loyalty, authority,* and *purity*). The modifications were implemented to make sure that the four scales would only reflect the moral foundations of harm, fairness, loyalty, and authority (rather than other aspects of morality included in Haidt and Graham's scales, such as care). The MFQ is comprised of two parts. In the first part, participants indicate the extent to which various considerations (e.g., whether or not someone was harmed) are generally relevant to their decision whether something is right or wrong. The second part consists of moral statements (e.g., "It can never be right to kill a human being"), and participants indicate the extent to which they agree with each statement. Composite scores are computed for each morality principle across item types.

The pattern of findings conveyed some support for our conjecture. Although scores for *harm*, *fairness*, and *authority* did not differ depending on the condition, *loyalty* did. After being confronted with misdeeds carried by the out-group, participants were significantly more likely to subscribe to loyalty as a basis for moral judgment than they were after being confronted with the same misdeeds carried out by an out-group.

In a second study, we aimed at testing the morality shifting hypothesis by assessing cognitive accessibility of the various morality principles, instead of using a self-report measure of the importance of such principles. As in the previous study, participants read an article depicting in-group or out-group atrocities, and in an allegedly unrelated study, they carried out a lexical decision task in which they had to decide, as quickly and accurately as possible, whether a string of letters that appeared on the computer screen was a word or a nonword. Participants were presented, in randomized order, with 20 pretested morality-related words (five harm-related words, e.g., *harm, abuse*; five fairness-related words, e.g., *fairness, justice*; five loyalty-related words, e.g., *loyalty, solidarity*; five authority-related words, e.g., *authority, leader*), 20 morality-unrelated words, and 40 nonwords. The morality-unrelated words were matched to the morality-related words in length and frequency (Francis & Kucera, 1982; Kucera & Francis, 1967). For each word, a nonword was constructed by changing one letter per syllable in the real word to ensure equal length, orthography, and pronounceability.

The pattern of results provided stronger evidence than in the previous study. Although in the condition in which the out-group carried out misdeeds, words related to *harm* and *fairness* were more available

than *loyalty* and *authority* words (as indicated by low reaction times); however, in the condition in which it was the in-group that was responsible, the opposite was true. Given that the principles of harm and fairness are considered the default principles in our society, there is reason to believe that it is the out-group condition that should be considered as a baseline, and thus reading about in-group atrocities caused a shift, resulting in greater accessibility or availability of loyalty and authority principles, as well as lower accessibility of harm and fairness principles.

The results from this second study suggest that reading about atrocities committed by the in-group causes a shift in the accessibility of morality principles, with loyalty and authority coming to the foreground, and harm and fairness receding to the background. This result is consistent with our morality shifting model, but much needs to be understood about the antecedents, as well as the consequences of this shift in the cognitive accessibility of morality principles.

Antecedents

With regard to the antecedent, our contention is that what is triggering the shift is threat, specifically, threat to the image of the in-group, and thus the self, as a moral entity. The threat is likely to be perceived very early on, from the first paragraph of the article, if not from the very title, for the in-group appears to have perpetrated the torture and killing of prisoners, which clearly violates moral standards. This perception colors the reading of the rest of the article: it may prompt a search for disconfirming opinions about the event, extenuating circumstances, or perhaps a decisive and clear-cut conclusion that however unfortunate, the actions under scrutiny are due to idiosyncratic characteristics of the individual perpetrators, rather than betraying an overall climate or, worse, policy.

The process the reader engaged in was not the focus of our investigation, but what I want to convey here is that the reader probably quickly recruits some defense mechanisms, some of which are the very moral disengagement strategies discussed above. At the same time, a psychological closing of the ranks may be occurring, probably the consequence of a variety of mechanisms, among which the sense of being identified, by the invisible narrator, as the perpetrator of atrocities by virtue of one's social identity (which enhances the salience of one's social identity), and the fact that one's group is under critique/attack. Such a closing of the ranks may be at the origin of the morality shifting that we observed, resulting in an enhanced accessibility of the concept of loyalty and authority.

It is noteworthy that not only the accessibility of loyalty and authority are enhanced, but also that harm and fairness become less accessible when individuals read about in-group atrocities, as compared with out-group atrocities. This may be due to the functional antagonism between these two classes of morality principles. But it is remarkable if we ponder the fact that most of the text of the article, in either condition, is about harm inflicted on other human beings, and the unfairness of the events described is blatant.

These preliminary findings may also be seen as caused by the in-group-prime that is inherent in the in-group-perpetrator condition. That is, enhanced loyalty and authority may simply increase as a consequence of priming the in-group (at present we are conducting further studies to disentangle this possibility). If this were to be the case, then it could be that morality principles can switch even in the absence of a clear moral dimension to the situation, and that we are predisposed to reconfigure our morality system, likely along with other systems, when we are processing information relative to, and as a member of, an in-group. In other words, the shift in morality principles that we observed could be part of a larger re-configuration of the self that is the topic of much research in self-categorization theory (Turner et al., 1987).

Consequences

An explicit endorsement of a certain morality principle is prima facie evidence that the person will act accordingly. Thus, the results on the MFQ speak for themselves with regard to the potential consequences of the shift. The significance of cognitive activation (as evidenced by the lexical decision task in our study) is less evident, but psychological theory and research findings clearly suggest that it may have consequences in terms of perception, judgment, and behavior. An early set of studies by Srull and Wyer (1979) showed that activation of the traits "hostile" or "kind" led to differential judgment of an ambiguous target in a subsequent task, in a manner consistent with the primed concept. Over the past four decades, social psychologists have used priming procedures, both supraliminal and subliminal, to investigate a large variety of phenomena, ranging from stereotyping (Fazio & Olson, 2003) to the influence of identity activation (Morris, Carranza, & Fox, 2008). It is therefore possible that the activation of one morality principle over another will enhance the likelihood that it will be used to estimate the morality of the events under scrutiny, and thus affect judgment and behavioral responses related to them.

When conjecturing about the possible consequence of the activation of certain concepts, it is also important to consider that the

extent to which activation will impact behavior depends on whether the construct is part of the active self-concept (Wheeler, DeMarree, & Petty, 2007). The specific type of morality shifting that we are investigating is expected to occur as a consequence of the coming together of social identity activation and a threat to that very social identity. In other words, the active self-concept is inherently part of the story. Yet the possible factors moderating activation and, perhaps more importantly, the link between activation and behavior, remain to be understood.

It is possible that the activation of *loyalty* and *authority* in contexts similar to that of our study occurs fairly automatically and thus is largely independent of individual characteristics such as attachment and glorification. Its translation into behavior, however, may not be as automatic. For instance, for low glorifiers (low attached), automatic activation of the loyalty/authority principles would not necessarily turn into a congruent behavior, and may even lead to its opposite (Wheeler et al., 2007), either because of the perceived contrast between the activated construct(s) and the self, or because of a deliberate decision by the individual to display a behavior consistent with one's sense of self (as opposed to the principle that is activated). Although the initial evidence of the process of morality shifting is intriguing, there is clearly a rich agenda of research ahead of us, in order to understand the genesis of the effect, its link to socially relevant behavior, and its moderating factors.

CONCLUSIONS

To the bewilderment of my family, the two topics that account for most of my research are death and intergroup conflict, which often brings about death. Death, by all accounts, is inevitable. So, I mostly study the consequences of this realization. But intergroup conflict is not, and I am thus interested in understanding its psychological antecedents and consequences. Over the last 10 years, I have focused my attention on strategies that are deployed to enable the most despicable occurrences of intergroup conflict (e.g., unlawful imprisonment, torture, killing) and on the defense mechanisms that we utilize to justify such occurrences to ourselves. The studies reviewed above shed some light on these strategies.

Studies reviewed in the first section show that moral disengagement strategies are deployed when the in-group is responsible for atrocities. By dehumanizing the in-group victims and perceiving their suffering as lesser, individuals build a narrative of the conflict in which the

in-group, and thus one's responsibility, is explained, minimized and/or justified. These processes have obvious negative consequences for long-term intergroup relations, reconciliation, and peace building. They also have the immediate negative consequence of reducing the desire for justice. Not surprisingly, if less injustice has been committed (because they are subhuman, because they did not suffer that much, because we were just avenging past events), less redressing is in order.

The second section dealt with a different, if related, mechanism: morality shifting. Building on theory and research on morality, in this research paradigm, we argue that when confronted with in-group atrocities, individuals shift the morality system. The principles of loyalty and authority come to the foreground, and those of harm and fairness recede to the background. Empirical research on this phenomenon is still in its infancy, and thus a lot about the mechanisms through which it comes about is matter of conjecture. But should it occur as we propose, this shifting would be enormously consequential for intergroup relations as well. The closing of the ranks and of the mind is a natural recipe for mistrust and the initiation of a spiral of conflict.

Morality shifting appears to be a more radical phenomenon than moral disengagement. The latter typically changes the way in which the events or the victims are perceived; the actions might be immoral, but if the magnitude of the events is played down or the victims are seen as subhuman, such actions are less distressing. Morality shifting, however, changes the very frame within which the events are understood: the actions are not immoral anymore. Although we have so far investigated them in separate lines of research, we do not see them as mutually exclusive phenomena, and we plan to assess what is their specific interplay in future research.

Although our experiments deliver mostly bad news, a silver lining still exists, for not everyone reacts in the same defensive manner exemplified by the use of moral disengagement strategies. And as discussed earlier, our morality shifting model is not deterministic when it comes to the influence of behavior. Furthermore, tired of accumulating bad news, myself and my collaborators and students, Bernhard Leidner, Caitlin Thompson, and Peter Kardos, have begun asking what would make a difference. What would make people react less defensively when confronted with news that one's group has tortured prisoners, or caused the death of scores of civilians? Empathy, the language in which the misdeeds are presented, and principled critiques of these actions embedded in the reporting of the actions themselves, are emerging as good candidates. For instance, if reports about in-group-perpetrated torture are accompanied by a moral critique of torture, group members react

less defensively and condemn torture more strongly as compared with either the absence of a condemnation of torture or a condemnation based on pragmatic arguments (e.g., "They will do it to us"; Castano, Leidner, & Kardos, 2010). These findings are, however, too preliminary to be reported here. Instead, I will end with a non sequitur.

Summertime experiences have punctuated this chapter, and as a matter of consistency, I will conclude it with yet another. This last one was in the summer of 1995, when I was an undergraduate student at the University of Padova, Italy, and Dora Capozza, social psychologist at the same university, dispatched Maria Paola Paladino and I to the Venice airport to pick up an eminent guest, Marilynn Brewer. Paola and I had seen a picture of Marilynn on her Ohio State University (OSU) web page, but something other than laziness must have been responsible for that picture being some 20 years out of date. So, we relied on an Italian stereotype about American Midwestern women: they all wear "sensible" shoes, possibly beige. With this strategy, we located her immediately, and drove her back to Padova.*

At the time, I was writing my undergraduate thesis, and Marilynn shared her immense knowledge about social identification and group processes with me. In doing so, she made me even more eager to better understand these phenomena and fueled my passion for generating rigorous scientific research that addresses important societal issues. Her expertise, generosity, and kindness continued to inspire me when I was a visiting graduate student at OSU, while she served on my PhD dissertation committee, and, later on, when I worked closely with her as a postdoctoral fellow at the Mershon Center of OSU. As the Brewer Lab dinners we routinely have at conferences testify, I am only one of the many on whom she has had a profound impact. Contributing to this volume in her honor is, in fact, my greatest honor.

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* As it happens, 15 years later, I am writing this as I approach Venice Airport, to be a visiting professor at Padova myself—if a much less eminent one.

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16

A MOVABLE FEAST

How Transformational Cross-Cultural Experiences Facilitate Creativity

William W. Maddux

"If you are lucky enough to have lived in Paris as a young man, then wherever you go for the rest of your life, it stays with you, for Paris is a moveable feast."

Ernest Hemingway (*A Moveable Feast,* p. iii)

I do not think it is a huge stretch to compare living in Paris with being Marilynn Brewer's graduate student. If you take some time to ponder what it would be like to live in one of the world's most beautiful and cultured cities and what it would be like to have several years sharing the same laboratory, classroom, and intellectual space with one of the foremost social psychologists in the history of the field, the two experiences actually have a lot in common. Both experiences are intense, for one. Challenging and stimulating, absolutely. But for those of us who had the unique good fortune to be among Marilynn's professional offspring, learning how to become a social psychologist under her tutelage was truly nothing less than a transformational experience; it was something that shaped you irrevocably and became part of you for years to come, probably something like Hemingway's halcyon years in Paris in the 1920s, where he learned to eat and drink, live and write, love and fight, suffer and create—probably something akin to a movable feast.

My research on culture and creativity is, in large part, Marilynn's legacy. Although this particular line of research was not among our many enjoyable collaborations, I may never have stumbled onto it without her expert guidance. For me in particular, two lessons were extremely important. First, Marilynn encouraged her students to work on what they were passionate about. I remember going to her with my first original research idea, one that was not yet fully formed or particularly profound, and not something that was in one of her main research areas. But her response was telling. She said something like, "Will, you don't need my permission to work on something. If it's what you care about, then that's what you should be working on." These were powerful words for a first-year graduate student to receive from one of the titans of our field, and I remember being filled with awe and gratitude for her response. Of course (and this will be of absolutely no surprise to anyone who knows her), she then started listing all the articles and book chapters I needed to read, the breadth and depth of which was amazing to see being generated spontaneously and in an area outside of her typical intellectual purview. So lesson number two: read a lot and read broadly. There were many other lessons of course—how to design methodologically sound studies, how to build compelling research programs, how to work your butt off—but for me at least, I found that being passionate about your topic and being well read were almost necessary preconditions for me to be able to do good research.

I can see how these lessons led me to be doing much of the work I do to this day. From Marilynn I learned to trust my ideas, ideas which, in my case, tended to come from my own life experiences (I had lived as an expatriate in Japan for 4 years prior to graduate school, and now I'm an expatriate again living in France). And I learned to read broadly, advice that I have always taken some liberties with since I have always tended to read as much fiction and philosophy as journal articles and book chapters.

So one evening when I was a postdoctoral fellow at the Kellogg School of Management, Adam Galinsky and I happened to be hunkered down in my office as the Chicago winter unleashed itself on the world outside. We were brainstorming about the pros and cons of international experiences for a lecture Adam was putting together for Kellogg's MBA students about to go abroad for 2 weeks as part of an entrepreneurship class. Maybe this kind experience makes people more creative, we thought, just like Hemingway and the "lost generation" of expatriate writers in Paris in the 1920s. But when we realized we knew of no empirical work showing concrete evidence whether living abroad leads people to be more creative, we immediately began to

design studies to test this empirically. After all, anyone who has spent any time delving into the lives of famous artists knows that gaining experience in foreign cultures is a classic prescription for stimulating imaginations or honing creative crafts. Not only Hemingway but also a number of other writers (Fitzgerald, Miller, Nabokov), poets (Yeats, Heaney), composers (Handel, Dvorak, Prokofiev, Stravinsky), and painters (Picasso, Gauguin) divined some of their best known masterworks during or following a stint living abroad. And many people returning from having lived abroad describe the experience as life changing, and admit that they can never view the world or themselves in the same way again. Certainly I had been just such a convert after four eye-opening years in the Far East, and Adam was a believer as well, having lived in Indonesia for a time in high school.

Indeed, the champion cheerleaders of the link between multicultural experiences and creativity tend to be expats themselves, such as Carlos Ghosn, CEO of Renault of France and Nissan of Japan. (Ghosn was born to Lebanese parents in Brazil, educated in France, speaks five languages fluently, and has worked on four continents.) Speaking at a conference at my current home institution of INSEAD, a business school with campuses in France and Singapore, he said, "I am of the belief, by experience, that when you have a very diverse team, from different backgrounds, from different cultures, different genders, different ages, you're going to get a more creative team. Probably getting better solutions, and enforcing them in very innovative ways and with a very limited number of preconceived ideas. So I'm totally convinced that the more diverse the team is, the better you understand the situation, and the more you are creative about the solutions" (Pallister, 2009).

Going abroad and returning as the next Picasso or Hemingway (or Steve Jobs or Sergey Brim or Carlos Ghosn) certainly makes for a great story to tell in the classroom to undergraduates, MBAs, or executives. But as skeptical and well-trained social psychologists, Adam and I knew that we needed empirical evidence before we ourselves could teach this to our students with confidence. So we embarked on a program of research to empirically test this idea. Several years later, after now having conducted myriad studies with college undergraduates, MBA students, and executives participating in classes and programs at various schools in the United States and Europe, we can now say with confidence that living in foreign countries does seem to make a substantial difference in people's creative abilities. Interestingly enough, however, we have yet to find that experiences traveling abroad significantly impact creativity. These two consistent but opposing findings have helped us glean some insights into exactly how and why certain

cross-cultural experiences affect and enhance people's creative abilities, and how they may also affect performance in other domains.

LIVING ABROAD FACILITATES CREATIVITY

In our first study on the effect of experiences abroad on creativity, we asked a group of MBA students at the Kellogg School of Management about their previous experiences living and traveling abroad after they completed the Duncker candle task (Duncker, 1945). In this classic test of creativity, individuals are presented with three objects on a table placed next to a cardboard wall: (1) a candle, (2) a pack of matches, and (3) a box of tacks. The task is to attach the candle to the wall so that the candle burns properly and does not drip wax on the table or the floor. The solution demands the ability to literally think outside the box: By emptying the box of tacks and then tacking it to the wall, the box of tacks becomes a candleholder. The solution is considered a measure of "insight creativity" (Schooler & Melcher, 1995) because it involves the ability to overcome a barrier to creativity called "functional fixedness," the common belief that objects can be used only for their typical function. So in this task, to find the correct answer individuals must discover the insight that the box is not just a repository for tacks but can also be used for a purpose for which it is not typically used (a candleholder). In this initial study, we found a significant correlation between the amount of time MBA students at the Kellogg School of Management had spent living abroad and whether they came up with the idea to use the box of tacks as a candleholder (Maddux & Galinsky, 2009, study 1). In fact, when we separated the results out and compared the performance of those who had lived abroad before and those who had not, we found that 60% of students who had previously lived abroad solved the problem correctly, whereas only 42% of students who had not lived abroad figured out the correct and creative solution.

A follow-up study conceptually replicated this finding in a very different context: a one-on-one negotiation situation involving the sale of a gas station. In this negotiation, a deal based solely on sale price was impossible because the minimum price the seller was willing to accept was higher than the buyer's maximum. However, the two parties' underlying interests were compatible, and although sale price was the only issue explicitly up for negotiation, a deal could be reached if parties looked for a creative agreement that satisfied both parties' interests. For example, the buyer (who needed managers to run the station) could promise a future job to the seller (who needed to find employment upon

returning from a round-the-world trip). Importantly, such creative solutions were never suggested or even hinted at in the role materials, so students had to discover such insights spontaneously during the course of the negotiation. But even when controlling for factors such as age, gender, nationality, grades, and the "big five" personality traits (e.g., McCrae & Costa, 1987), we found that the longer students had lived abroad the more likely they were to find a creative solution to this seemingly intractable problem. In fact, in pairs where both negotiators had previously lived abroad 70% found a creative solution to circumvent the negative financial bargaining zone, whereas 0% of dyads in which neither negotiator had lived abroad were able to solve the exercise creatively (Maddux & Galinsky, 2009, study 2). Interestingly, in this study as well as in the Duncker candle study, traveling abroad did not significantly predict creativity.

Although these studies were informative, their correlational designs did not allow us to provide causal evidence that living abroad (but not traveling abroad) may actually cause increased creativity. The most obvious alternative explanation is that creative people, perhaps seduced by stories of Hemingway drinking martinis at the Paris Ritz or Gauguin painting on the beach in Tahiti surrounded by bronzed, bikinied women, are simply more likely to go abroad in the first place. To solve this question of whether being abroad actually *causes* individuals to be more creative, we went into the laboratory and experimentally primed the experience of living abroad to see if cognitively reactivating this experience actually causes more creativity.

In one study, we randomly assigned groups of undergraduate students at the Sorbonne in Paris (all of whom had been selected for the study because they had previously lived abroad) to recall and write about a time they had lived abroad; other groups were asked to write about having traveled abroad, being in their hometown, or going to the supermarket. We then asked them to complete the Remote Associates Task (RAT; Mednick, 1962), a test of creative associational thinking. In this task, examinees are presented with three words and asked to come up with an additional word that can logically associate the three words together. For example, for the triad of words "manners, round, tennis" the correct answer individuals need to come up with is "table," which associates all three words together (i.e., table manners, round table, and table tennis). As predicted, we found that participants who had been primed to recall having lived abroad solved more RAT answers correctly than those who recalled and wrote about other types of experiences, including traveling abroad (Maddux & Galinsky, 2009, study 3).

ADAPTING TO FOREIGN CULTURES AND THE LINK BETWEEN LIVING ABROAD AND CREATIVITY

Results from these initial studies demonstrated that there is something about living abroad that predicts or enhances creative abilities. However, these results do not provide specific insight into what underlying mechanism drives this link. Nevertheless, the pattern of results from our first few studies provided some suggestions. Because we found that only living abroad (rather than traveling abroad) is associated with higher levels of creativity, it is possible that relatively immersive or transformational foreign experiences are particularly important in stimulating creativity. In addition, previous research suggests that just exposing individuals to novel cultural elements is not enough to lead to enhanced creativity; at a minimum, individuals must actively compare multiple cultures and do some cognitive work exploring the differences and similarities between multiple cultures to get enhanced creativity (Leung & Chiu, 2010). Thus, it seems likely that the association between living abroad and creativity would be weakest for those who remain aloof from their new culture (e.g., by associating only with expatriates or being unwilling or unable to adapt their behavior to different cultural contexts) and strongest for those who deeply engage with the culture and, in doing so, potentially change fundamental aspects of the way they think about and approach the social world.

Thus, we expected that adaptation would be a key psychological element that explains why living abroad is associated with creativity. Because culture is such a pervasive force, impacting and shaping literally every aspect of one's life, adapting oneself to a new culture—learning how to feel, behave, and think in a different way, in short, learning how to become a different person altogether—may make individuals chronically aware of multiple perspectives and approaches when dealing with even mundane and novel situations and thus lead to increased chronic levels of creativity. Indeed, in related work in the management literature, psychological "adjustment," or individuals' abilities to fit into a foreign culture in terms of managing stress and emotions, has been found to reliably predict success for employees on international assignments (for reviews, see Black, Mendenhall, & Oddou, 1991; Bhaskar-Shrinivas, Harrison, Shaffer, & Luk, 2005).

This is exactly what we found in a subsequent study with 133 MBA students across two introductory leadership classes at INSEAD. This was an eclectic, heterogeneous group that came from 40 different countries, in addition to 15 individuals who held dual nationalities. At the beginning of the class we gave them a survey about their international

experiences, and then two weeks later we asked them to do the Duncker candle test. Replicating the finding from our first study with Kellogg MBAs, we again found a significant correlation between time lived abroad and creativity. But when we looked at the extent to which students said they adapted themselves to the host culture while abroad, we found that the degree of adaptation significantly mediated the link between living abroad and creativity (Maddux & Galinsky, 2009, study 4).

In order to test the causal role of adaptation, we ran a final study in which we randomly assigned groups of undergraduate students at the Sorbonne in Paris (all of whom had previously lived abroad) to recall and write about a time they had adapted to a foreign culture, while other groups were asked to write about observing a foreign culture (which we reasoned was analogous to traveling abroad), learning a new sport, or a control condition with no prime. We then asked participants to draw aliens they might encounter on a strange planet (e.g., Kray, Galinsky, & Wong, 2006), which is an unstructured test of generative creativity. After having three independent coders evaluate the creativity of the aliens, we found that those participants primed with the adaptation experience drew aliens that were more creative than the ones drawn by those primed with the other experiences (see Figure 16.1).

FUNCTIONAL MULTICULTURAL LEARNING AND CREATIVITY

Our initial studies established that living abroad facilitates creativity and that this relationship can be explained by adaptation: the more individuals adapt themselves while abroad, the more creative they become. This first foray into understanding the link between experiences abroad and creativity showed that multicultural experiences probably involve a fairly transformational psychological experience in order to produce an enduring psychological change such as enhanced creativity. Travel abroad may be interesting and rewarding, but except for the most enthusiastic and adventurous travelers, most experiences abroad probably do not provide significant incentives to actually change the fundamental ways they think about, understand, and approach the social world. But success while living abroad can often depend on how individuals change their thinking and behavior to fit the local culture. Working with foreign colleagues, interacting with foreign friends or romantic partners, and navigating the minutia of daily life for months or years surrounded by unfamiliar rules, norms, rituals, languages, and behaviors will likely be bewildering and insufferable unless one
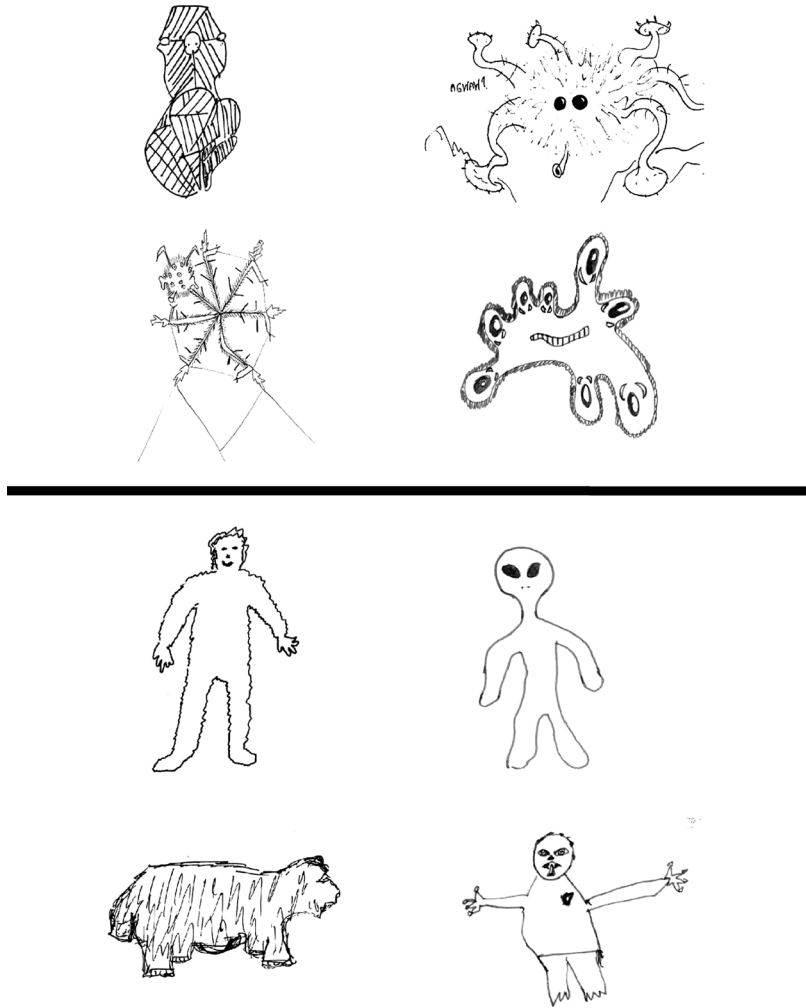
Figure 16.1 Aliens coded as creative (top panel) and not creative (bottom panel). (Reprinted from Maddux, W. W., & Galinsky, A. D. (2009, study 5). *Journal of Personality and Social Psychology, 96*(5), 1047–1061.)

takes steps to decode the new culture and fit in. Should this happen, such deeper learning experiences could potentially lead to psychological transformations that could impact more downstream psychological processes such as creativity.

Indeed, research has shown that acquiring new information and new understanding can change basic psychological processes and even

how the brain is wired (for a review, see Doidge, 2007). For example, neurological research shows that London taxi drivers develop a larger hippocampus (the area of the brain that stores spatial representations) the longer they have been working (Maguire et al., 1999). And amazingly enough, blind individuals are able to marshal progressively larger areas of the visual cortex as they practice using their fingertips to read braille (Pascual-Leone & Torres, 1993). Culturally determined psychological tendencies can also noticeably shift when individuals learn about or adapt to new cultures. For example, although research has shown that while Japanese are better than Americans at relative (compared to absolute) spatial judgment tasks (whereas Americans show the opposite pattern), Americans living in Japan perform these relative tasks similarly to Japanese (Kitayama, Duffy, Kawamura, & Larsen, 2003). Conversely, Japanese living in the United States respond to absolute spatial judgments tasks as accurately as Americans and significantly better than Japanese living in Japan (Kitayama et al., 2003). Further, activation in brain areas that correspond to either a heightened contextual or object focus is correlated with the extent to which individuals have acculturated to East Asian or Western countries (Hedden et al., 2008). Thus, if intensive cultural learning experiences are powerful enough to alter brain structure and basic perceptual tendencies, such experiences may impact the creative process as well.

In a follow-up paper with my former graduate student at INSEAD, Hajo Adam, we found exactly this result; that is, multicultural learning constitutes a critical component of the adaptation process, acting as a catalyst to increased creativity (Maddux, Adam, & Galinsky, 2010). In our first experiment, undergraduate participants who had previously lived abroad were primed to recall either a multicultural learning experience or a learning experience within their native culture; participants were then asked to complete word fragments that could be solved in multiple ways (Friedman & Foerster, 2001), a test of creative flexibility. For example, the French word fragment "_OUTARDE," could be solved with either "*moutarde*" (mustard) or "*routarde*" (backpacker). We found that, as predicted, compared to participants in the within-culture learning condition, participants in the multicultural learning condition were better able to complete word fragments in multiple ways (Maddux et al., 2010, experiment 1).

This particular task suggested that multicultural experiences may help individuals approach tasks with more flexibility, as they are open to multiple perspectives with an understanding, similar to that necessary for the Duncker candle task, that the same problem can have multiple solutions. We believe such effects are analogous to one of the

major challenges faced in adapting to a new country: learning not only *that* cultural differences exist, but also learning *why* those cultural differences exist in the first place. For example, in some cultures, like China and Jordan, it is polite to leave food on one's plate at the end of a meal because it signals that the host has been generous and one has had enough to eat; in the United States or France, however, the same behavior is considered rude, typically signaling that one has not enjoyed the meal. For an American expatriate in China, learning the underlying function of leaving food on one's plate can not only help overcome the creative barrier of functional fixedness, but it can also provide broader cultural insights such as understanding the importance of indirect communication, relationship maintenance, and face-saving. This deeper understanding of why something as simple as food on a plate is a sign of respect may then lead to novel insights as to how to creatively approach problems in other interpersonal situations as well. Thus, we reason that there may be not only something important about multicultural learning per se, but also something important about "functional" multicultural learning in particular (i.e., learning about the underlying reasons for observed foreign rituals, rules, and behaviors) for enhancing creativity.

So in experiment 2, we assigned participants who had previously lived abroad to one of four conditions: In the functional multicultural learning experience condition, participants were asked to recall and write about a multicultural experience in which they learned the underlying reasons why people from a *different* culture behave the way they do. In the functional within-culture learning condition, participants were asked to recall and write about a time in which they learned the underlying reasons why people from *their own* culture behave the way they do. In these two conditions, participants were asked to write why what they learned was new to them. In the new sport–learning condition, participants were asked to recall and write about a time they learned a new sport. In a control condition, participants were asked to recall and write about the last time they visited the supermarket. After completing the priming task, participants were instructed to complete the RAT. As predicted, we found that participants primed with the functional multicultural learning experience correctly solved more RAT triads than participants in the other three conditions (Maddux et al., 2010, experiment 2).

Because in these two initial experiments we held learning constant while varying the cultural context, in a third experiment we held the multicultural context constant and varied learning. In one condition, we asked participants to recall and write about a time in which they

learned something novel about a foreign culture and were *able* to learn about the underlying reasons for it. In a second condition, we asked a different group of participants to recall and write about an experience in which they learned something novel about a foreign culture but were *not able* to learn about the underlying reasons for it. If functional learning is particularly critical for creative enhancement, creativity should be facilitated in the former compared to the latter condition.

In addition, because all of our previous priming studies included only participants who had previously lived abroad, we also tested whether it is necessary to have actually had the experience of living abroad for our priming manipulations to have an effect. On the one hand, it is possible that when participants have not lived abroad and are asked to reflect on a functional multicultural learning experience, they will extrapolate from whatever cross-cultural experience they have had (e.g., via others' experiences, or from books, movies, music, research, or travel) to simulate such an experience, which could potentially impact creativity. On the other hand, it is also possible that a concrete and highly impactful foreign experience (such as actually having lived in a foreign country) in which learning of underlying functions occurred is necessary for enhanced creativity. This hypothesis is based on the distinction between mental availability and accessibility: for a process to be made accessible, it must first be available in memory (e.g., Higgins, 1996).

To test whether living abroad is necessary for recalling multicultural learning to facilitate creativity, experiment 3 included participants who had and had not lived abroad. Overall, we predicted enhanced creativity for participants primed with the functional multicultural learning experience compared to those primed with the nonfunctional multicultural learning experience, but only for participants who had previously lived abroad. This is indeed what we found: Kellogg MBAs were more likely to solve the Duncker candle problem when primed with the functional multicultural learning experience, but only if they had previously lived abroad, presumably because such individuals were less likely to have functional multicultural learning experiences to mentally access: there was no creative difference across conditions for participants who had not lived abroad (Maddux et al., 2010, experiment 3).

BICULTURAL IDENTITY, CREATIVITY, AND PROFESSIONAL PERFORMANCE

Clearly these studies tell us that living abroad is important. Those who live abroad are more creative, and re-creating the experience of living abroad in the laboratory, as well as critical aspects of such experiences

such as adapting and learning, has a reliable impact on the creative process. Importantly, we have now replicated such findings outside of the laboratory. In a study done in collaboration with Frederic Godart, we also found that when fashion houses (e.g., LVMH, Chanel) had creative directors who had lived or studied abroad, these houses were rated as more creative organizations than fashion houses whose directors did not have foreign living experience (Godart, Maddux, & Galinsky, 2011).

At the same time, our particular findings regarding adaptation and learning suggest that the specific approaches people take while living abroad—their mindsets and motivations—are critical in being able to realize these creative advantages; those who do not learn about or adapt to their host country are unlikely to be psychologically transformed by the experience, and thus less likely to derive a creative benefit. Indeed, other research has demonstrated that creativity may only be enhanced by general multicultural experiences (such as having parents from different countries or having foreign friends) when individuals are above a certain threshold of openness to experience (Leung & Chiu, 2008).

Our more recent work in collaboration with Carmit Tadmor at Tel Aviv University discovered the importance of a multicultural identity as a means of translating foreign experiences into creative as well as professional advantages. In particular, we found that those who are able to successfully integrate the identity of their host or foreign culture, while at the same time also retaining their home or native culture identity, may be particularly well positioned to realize creative and other professional benefits. In one study, we queried a group of INSEAD MBAs, all of whom had previously lived abroad, about their experiences in different countries, in particular the extent to which they felt they identified with both their home culture and the culture in which they lived abroad. Later, we asked them to do the unusual uses test by thinking of as many creative uses for a brick as possible within 2 minutes (Guilford, 1950). We found that "biculturals," those who highly identified with both their home and host countries, came up with the most creative uses for a brick compared to those who identified with only their host country (termed assimilated individuals; see Berry, 1997), those who identified with only their home country (separated individuals), or those who identified with neither country (marginal individuals; Tadmor et al., 2010, study 1). This creative advantage was found not only when coders rated the overall creativity of uses but also when they rated the number of uses participants generated (a measure of creative fluency) and the number of different categories for such uses (a measure of creative flexibility), such as weapons or tools (Tadmor, Galinsky, & Maddux, 2010).

In a subsequent study, we investigated whether biculturalism might have concrete, real-world advantages such as impacting performance in professional careers. Because past research has demonstrated a reliable link between enhanced creativity and general professional success (e.g., Gong, Huang, & Fahr, 2009), we thought this was a distinct possibility. Specifically, creativity has been suggested to provide employees with the tools necessary to respond effectively to various organizational challenges, such as devising new procedures or processes for carrying out tasks; identifying and creating products, businesses, or services to better meet customer needs; refining existing procedures or processes to enhance efficiency; or discovering alternative procedures or processes to increase effectiveness (Zhou & Shalley, 2003). Consequently, we expected biculturals to be more successful in the managerial domain than assimilated or separated individuals.

To investigate this hypothesis, we again went out into the field and identified 100 Israeli managers who were working in the high-tech industry in Silicon Valley. We queried these managers on a number of variables, including the extent to which they felt they identified with both their native country of Israel and their host country, the United States. When we examined the rates of promotion for these managers and assessed their reputations in the high-tech industry, we again found that biculturals had been promoted faster and had better reputations than managers who identified themselves with only Israel or the United States, or neither country (Tadmor et al., 2010). These results held even when controlling for the big five personality traits, English language ability, gender, number of years in the United States, years of job experience, years with current company, and political orientation. In a subsequent study, we also found that biculturals were more likely to have created successful new products at work than separated or assimilated individuals (Tadmor et al., 2010).

OTHER TYPES OF TRANSFORMATIONAL CROSS-CULTURAL EXPERIENCES

Experiences living abroad are not the only cross-cultural experiences that matter for creativity. Indeed, we do not necessarily believe that something magical happens on crossing a national border; for example, a Chicago native may have a much more profound cultural experience by moving to rural Georgia than by moving to Toronto. Extant research supports this idea: in a study assessing different kinds of multicultural experiences within the United States—such as living outside one's home state, number of foreign friends, foreign language ability, familiarity

with foreign music and food, and parents' foreign nationality—such multicultural experiences, even if they occurred within a single country, predicted creative outcomes (Leung & Chiu, 2010).

In addition, culture is not limited to national cultures. Organizations also have their own type of culture, and work in the management literature suggests that organizational cultures can profoundly shape employees' affect, cognition, behavior, and motivation, as well as the performance of the organization as a whole. Organizational culture is typically defined in terms of the rules, norms, and symbols that shape the coordination of behavior of members within an organization (e.g., O'Reilly & Chatman, 1996). Tellingly, some dimensions of national culture, such as individualism and collectivism, have been applied to organizational cultures as well (e.g., Chatman, Polzer, Barsade, & Neale, 1998). Thus, it seems possible that experiences in different organizational cultures might have an impact on individuals' creativity. And this is indeed what we found in a preliminary study with 46 managers participating in an executive leadership class at Kellogg. We first queried these individuals as to their work experience, number of organizations they had previously worked in, and how different each organization's culture was compared to the organization they currently work in. We then had them do the unusual uses test and queried them about their entrepreneurial experiences. We found that the more managers had worked in organizations with very different organizational cultures the more creative they were on the unusual uses test, and the more likely they were to have become entrepreneurs (Maddux, Galinsky, Gregersen, & Dyer, 2008).

The results of these studies suggest that regardless of whether it is national culture, organizational culture, or regional culture, culture matters. If this is the case, future research should also investigate the effect of exposure to other types of cultures such as different ethnic cultures. Indeed, even within the United States, there can be very different cultural traditions across Latino American, African American, Asian American, and European American communities, and exposure to and immersion across different traditions, as long as such conditions are relatively positive (Allport, 1954), can potentially have an impact on creativity. For example, research has shown that priming people with a multicultural mindset leads to greater perspective-taking than priming people to think about race in a colorblind manner (Todd & Galinsky, 2010). This research is suggestive that creativity might also be impacted by activating multicultural versus color-blind cognition. Because perspective-taking involves a similar ability as creativity to perceive and appreciate problems having multiple perspectives, creativity could also be affected by individuals who are reminded and motivated to

appreciate and differentiate the abilities, talents, and contributions of different ethnic cultures.

HOW DO TRANSFORMATIONAL CROSS-CULTURAL EXPERIENCES ENHANCE CREATIVITY?

Most of the work reviewed in this chapter focuses on the fact that different types of transformational cross-cultural experiences produce better creative and even professional outcomes. Although we have some important insights that adaptation, learning, and identity integration are critical for enhanced creativity to come about, what do all these mechanisms have in common? How might the brain be reorganizing itself during the learning, adaptation, and identity integration processes?

It may be easier to understand how this comes about if creative output is separated from creative processes. Whereas creative output is typically defined as something novel and useful (e.g., Amabile, 1996), the act or process of producing something creative involves a number of different factors and mechanisms, any one or any combination of which can potentially lead to a creative outcome and many of which are likely to occur during transformational cross-cultural experiences. Indeed, in a theoretical article we wrote in collaboration with Angela Leung and Chi-yue Chiu (Leung, Maddux, Galinsky, & Chiu, 2008), Adam and I hypothesized that a number of creative processes may be affected by multicultural experiences.

First, and most fundamentally, people are exposed to and learn about new ideas and concepts during experiences abroad. These ideas can then act as inputs for the creative expansion processes and allow individuals to generate significant rather than incremental creative leaps. The more new ideas people have, the more likely they are to come up with novel combinations and completely new ideas uninfluenced and uncorrupted by previous ideas (Weisberg, 1999). Indeed, this may be why individuals primed with the experience of adapting abroad were able to spontaneously draw more creative aliens than those primed with other experiences (Maddux & Galinsky, 2009, study 5; see Figure 16.1). Such a task necessarily requires thinking unconventionally and not being anchored by familiar exemplars of animals common on Earth. Importantly, in this particular study, coders rated not only how creative the aliens were, but also how similar the aliens were to Earth's creatures, the extent to which participants seemed to take known creatures into account when making their drawings, and the extent to which participants took general animals into account when making their drawings. We found that those participants primed with the adaptation experience not only

produced more creative aliens but also were significantly less influenced by common Earth exemplars (e.g., they produced pretty strange aliens that did not much resemble dogs or birds or stereotypical ET-like aliens; see Figure 16.1). Such a result suggests that being exposed to very different ideas allows individuals to escape the cognitive shackles of culturally constrained conceptualizations and allows them to more easily generate and explore completely new ideas.

Second, living abroad, learning about and adapting to a new culture, and integrating new cultures into one's identity may lead to creative insights, the sort of "a-ha" experience that comes when a creative solution is suddenly realized (Schooler & Melcher, 1995). As noted in the section "Functional Multicultural Learning and Creativity," leftover food on a plate can signal very different meanings in China and the United States (i.e., a compliment or a criticism). Armed with such an insight, the multicultural sojourner is more likely to see even mundane problems from multiple perspectives and less likely to see problems as having only a single solution. Indeed, anecdotally at least, many expatriates indicate the most profound insight they have gained from living abroad is the realization that there is not one right way to do something; they now understand that different cultures have simply developed very different ways to deal with the same problems and situations. Armed with this insight, those who have lived abroad may realize that problems can have multiple acceptable solutions.

Such a realization pops up in a number of quotes from Barack Obama, the first U.S. president to have substantial experience living in a foreign country—between the ages of 6 and 10 Obama lived in Indonesia with his mother and his Indonesian stepfather. Later on in his twenties, Obama spent considerable time in Kenya getting to know the extended family of his biological father. As Obama himself acknowledges, these experiences gave him the critical ability to see problems from multiple perspectives. "I've lived in Muslim countries, even while I'm Christian, so I know how they're thinking about issues," Obama said during the 2008 presidential campaign (as cited in Newton-Small, 2007). And regarding his African roots, Obama said, "The day I'm inaugurated, the world will look at America differently, because the leaders of other counties will know that I've got family members that live in small villages in Africa that are poor. So I know what they're going through" (as cited in Newton-Small, 2007). Has this led Obama to be more creative than he would have been without such experiences? It is impossible to say for sure, but it is notable that less than a year into his first term in office he was already a best-selling author and Nobel Peace Prize winner, achievements that typically necessitate at least a modicum of creative ability.

Seeing problems from multiple perspectives is exactly the sort of insight that was necessary to solve the Duncker candle problem used in several of our studies; the insight that a box of tacks could be used for a purpose it is not typically intended for (a candleholder) is more likely to occur if individuals had lived abroad. The same sort of insight, that money is not the only way to come to a deal in a negotiation over the sale price of a gas station, was also more likely to occur for those who had lived abroad (Maddux & Galinsky, 2009, study 2). And a similar flexible problem-solving ability may have been at work in the word fragment task, which demanded the ability to produce multiple solutions to the same word fragments (Maddux et al., 2010, experiment 1). Indeed, the process of seeing problems, issues, and even people themselves from multiple perspectives may be part and parcel of people being able to develop cultural intelligence, the ability to adjust their thoughts and behaviors to other cultures (Earley & Ang, 2003). And indeed, our research suggests that developing cultural intelligence is highly likely to happen if individuals live in and adapt to foreign countries.

Third, transformational foreign experiences may lead not only to the ability to generate brand new insights and ideas but also to developing creative associations between existing ideas. Indeed, many instances of creative association in daily life result from integrating indigenous exemplars from diverse domains. For example, the musician Gunther Schuller is renowned for his introduction of the new musical genre "Third Stream" that synthesizes classical music with jazz. Similarly, a psychologist exploring topics traditionally confined to economics (e.g., auction behavior) or physics (e.g., understanding collaboration networks through computer modeling) may integrate ideas from each discipline into new insights that are hidden from the individuals working exclusively in their own disciplines, leading to enhanced creativity. Indeed, our findings that living abroad and functional multicultural learning lead to enhanced performance on the RAT speaks exactly to this idea of being able to make creative associations between unrelated concepts.

Finally, and perhaps most importantly, transformational foreign experiences may cause people to become more integratively complex (Tadmor & Tetlock, 2006). "Integrative complexity" refers to the capacity and willingness to acknowledge the legitimacy of competing perspectives on the same issue (differentiation) and to forge conceptual links among these perspectives (integration). Indeed, researchers have postulated that those with chronic cognitive access to multiple cultural scripts are confronted with a greater level of cultural conflict than individuals who adopt only a single cultural identity; the more conflicts that are routinely resolved in a complex way, the greater the likelihood of

simultaneously accessing both cultural knowledge networks despite their apparent dissimilarities and contradictions (Tadmor & Tetlock, 2006). And the more individuals go through this process with regards to resolving their cultural identity, the more such integrative complexity can be extended to creative resolution and problem solving in other domains.

Consistent with this argument, researchers have found that bicultural Israelis living in the United States as well as Asian American biculturals expressed more integratively complex thoughts (Tadmor, Tetlock, & Peng, 2009). In fact, when we went back and analyzed the integrative complexity of Israeli American managers in our field study on the effect of biculturalism on career performance and reputation, we found that integrative complexity completely mediated the link between bicultural identity and managerial performance and reputation. Furthermore, in the creativity study we conducted with bicultural MBA students at INSEAD, we found that students' levels of integrative complexity—as measured across several different written assignments—again fully mediated the link between biculturalism and increased creativity. We also found that integrative complexity mediated the effect of biculturalism on new product creation (Tadmor et al., 2010). Although we have yet to find that integrative complexity mediates the link between living abroad and basic creativity, we would not be surprised if this finding emerged at some point in our research program. Indeed, at the conceptual level it seems likely that integrative complexity is an important part, if not the most important part, of the process of adapting and fitting in to a new culture that we originally found explained the link between living abroad and creativity.

Taken together, our findings suggest the likelihood that transformational cross-cultural experiences may lead to a number of enhancements of the creative process because such experiences affect individuals' integrative complexity. In other words, the processes of adaptation, functional learning, and multiple identity integration may all be integral parts of, or precursors to, the more general and overarching process of becoming more integratively complex (see the model presented in Figure 16.2). This process may thus act as a critical catalyst for generating new ideas and insights and making novel associations. Although this model will need to be more rigorously tested going forward, theoretically it stands to reason that living abroad facilitates creativity because it fundamentally alters the structure of individuals' cognition, making it more flexible, adaptable, and complex, allowing connections to form between disparate and sometimes conflicting ideas, and facilitating the chronic ability to examine issues from multiple perspectives.
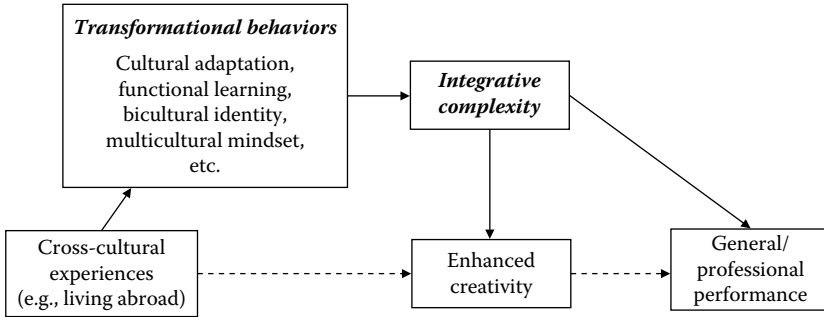
Figure 16.2 Model of how transformational cross-cultural experiences lead to enhanced creativity.

If profound cultural experiences produce deep psychological changes even at the neurological level, such fundamental structural change in the brain could then have general and wide-ranging benefits. Indeed, our findings on the impact of multicultural experiences on professional performance suggest that other issues like the improved ability to navigate interpersonal relationships, manage group conflicts, make judicious decisions in terms of long-term organizational planning and strategy, and other mental and social processes could result from transformational cross-cultural experiences that produce more integratively complex individuals. Thus, it may not be such a gigantic leap from solving candle problems or word association tasks in the laboratory—what some researchers have referred to as "little c" creativity—to producing great works of literature or starting successful new companies, that is, the so-called "big C" creativity (see Maddux, Leung, Chiu, & Galinsky, 2009, for a discussion; Rich, 2009).

Thus, we can now say with quite a bit of confidence that for those looking to stimulate their imaginations or just suck a bit more of the marrow out of life, spending months on field research in East Africa, taking a sabbatical in Hong Kong or Beijing, or deciding to retire to that beachfront condo in Sydney might just end up being the first of many great ideas.

CONCLUSIONS

When Ernest Hemingway moved away from his native United States to live in Paris in 1921, he was a fledgling reporter for the *Toronto Star*. By the time he left Paris in 1927 for Key West, Florida, he had become a published and famous novelist (*The Sun Also Rises*) and was well on the way to becoming the most influential writer of his generation. Although it is impossible to definitively say how much Hemingway's expatriate

experiences helped him to become one of the greatest of American novelists (he also later lived in Spain and Cuba as well as spending long stints in Africa), the fact that his most famous novels were written in and set outside the United States is highly suggestive that these experiences were critical for the genesis of much of his best writing.

In many ways, my five years as Marilynn's graduate student at Ohio State were my own sort of "Paris years," a time when my intellect and abilities as a fledgling social psychologist were stretched to the limit ... and then well beyond. Although my time in Columbus, Ohio, was sandwiched between stints living in much more exotic locales—four years in Japan and now four-plus years and counting in France—the experience shaped me and stayed with me just as much as, if not more so than being an American expatriate, living in Asia or Europe. So, perhaps being a Marilynn Brewer student was just the sort of transformational *life* experience—one that some of us were lucky enough to discover in fairly prosaic places like southern California and central Ohio—that we are now finding makes people more creative and productive.

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17

TRUST IN THE MANAGER AS
A SUPERVISOR OR A GROUP LEADER?

*Toward a Relational Versus Collective
Distinction in Procedural Justice*

Ya-Ru Chen, Guozhen Zhao, and Jean Lee

Among many important contributions Marilynn Brewer has made to theory and research in social psychology and human behavioral research is the trichotomization of self identities—individual, relational, and collective selves (Brewer & Gardner, 1996; Brewer & Chen, 2007; Sedikides & Brewer, 2001). The important distinction between the *relational* self, defined in terms of connections and role relationships with significant others, and the *collective* self, defined in terms of prototypical properties that are shared among members of a common in-group, has fundamentally changed our understanding of gender difference in interdependence (Cross & Madson, 1997; Gabriel & Gardner, 1999) and clarified decades of confusion in the cross-cultural dimension of individualism and collectivism (Brewer & Chen, 2007). In this chapter, we argue and borrow findings from a recent study by Chen & Brewer (2010) to propose the usefulness and importance of the distinction between relational self and collective self in the procedural justice research. In doing so, we hope to not only celebrate Marilynn's lifelong contributions, but to also stimulate thoughts on how the relational versus collective distinction might be of use to other domains in social psychological and organizational research.

We organize our chapter as follows: We begin by providing a short review of the major theories and findings in the procedural justice research and literature. After that, we draw attention to the dominant dyadic (relational) focus in the procedural justice research, despite the centrality of social institutions or collectives to the very notion of justice (Rawls, 1999). To illustrate the critical distinction between justice at an interpersonal/relational level and justice at a collective/group level, we then discuss the differences in the main findings on the dependent variable of supervisor evaluation versus the dependent variable of leader evaluation from Chen and Brewer's (2010) recent study. As Chen and Brewer (2010) argue, people take on different cognitive and psychological frames and standards when they are asked to evaluate their manager as a supervisor (at a relational level) or a leader (at a group/collective level). In testing such a distinction, they also simultaneously examined whether leadership is fundamentally a collective/group notion (Van Knippenberg & Hogg, 2003; Yukl, 2002), or a relational/dyadic notion in people's cognition (Graen & Scandura, 1987; Graen & Uhl-Bien, 1995; Schriesheim, Castro, & Cogliser, 1999). Finally, we suggest theoretical implications from our discussion to literatures in procedural justice and leadership.

THEORETICAL OVERVIEW

Since the seminal work of Thibaut and Walker (1975), it has been shown consistently that justice judgments are a function not only of how fair people perceive their individual outcomes (i.e., distributive justice) to be, but also of how fair people perceive the procedures they experience underlying the determination of their outcomes to be (i.e., procedural justice; Brockner & Wiesenfeld, 1996; Folger, 1986; Lind & Tyler, 1988; Tyler, Boeckmann, Smith, & Huo, 1997). Moreover, procedural justice has been shown to affect a wide array of organizational phenomena, including job satisfaction (Soon, Van Dyne, & Begley, 2003), job stress (Brotheridge, 2003), work diversity issues (Stockdale & Crosby, 2003), leadership effectiveness (De Cremer & Van Knippenberg, 2002), employee deviance (Bennett & Robinson, 2003; Greenberg, 2002), negotiation processes (Bies & Lewicki, 1999; Brockner et al., 2000), hierarchical relationships (Chen, Brockner, & Greenberg, 2003), and conflict resolution (Deutsch, 2000). In fact, when one does a quick search in the Web of Science database, thousands of articles with procedural justice in the title appear. It is clear that procedural justice has gained a great deal of attention in organizational research (Colquitt & Greenberg, 2005).

Several theoretical perspectives have been offered to account for the widely documented procedural justice effects. The first theoretical perspective posed in the 1960s and 1970s tended to emphasize the role of self-interest, in particular long-term self-interest (Becker, 1960; Gergen, 1969; Thibaut & Walker, 1975). According to that *instrumental* perspective, people value fair processes because they believe that fair processes ensure predictability and stability of favorable long-term outcomes (Homans, 1974).

Subsequent to the instrumental explanation, a number of relational explanations for "the fair process effect" that emphasize people's interactions and *relationships* with one another have been offered—first in the group-value theory (Lind & Tyler, 1988), later in the relational model of authority (Tyler & Lind, 1992), and more recently in the group engagement model (Tyler & Blader, 2000). The relational approach originates from the work by Blau (1964), who placed exchanges on a continuum from economic to social. Economic exchanges are characterized by a short-term time horizon, the exchange of tangible and direct benefits, and a quid pro quo orientation. Social/relational exchanges, on the other hand, are characterized by a long-term time horizon, the exchange of social-emotional benefits, a close relationship between exchange parties, and a diminished expectation for specific and immediate reciprocation (Rousseau, 1995). The common theme across various relational models for procedural justice is that people value procedural justice for reasons beyond their instrumental concerns for economic well-being. For example, the relational model of authority (Tyler & Lind, 1992) has argued that fair procedures communicate respect and dignity from the decision maker such as an authority or a supervisor to those affected by his/her decision. Moreover, fair procedures convey to those affected by decisions that they are full-fledged members of the group that uses the procedures, which, in turn, makes those experiencing fair procedures feel more accepting of the decisions (De Cremer, Brockner, Van den Bos, & Chen, 2005; Tyler & Blader, 2000).

More recently, a third perspective that has been proposed to account for the effect of procedural justice is the moral/ethical explanation (Folger, 1998, 2001; Folger, Cropanzano, & Goldman, 2005). The moral value perspective suggests that people care about procedural justice not simply as a means toward better economic individual well-being, nor as an indication of the importance they attach to the relationship with the authority or an affirmation of their self-identity and individual worth within their group, but as an end in its own right. Based on this view, people would be concerned about procedural justice not only in the exchanges in which they are directly involved, but also in those

in which they only serve as third-party observers (Folger, 2001; Lind, Kray, & Thompson, 1998). The basic assumption behind this approach is that justice is a basic human value and virtue that people want to see affirmed in their social environment (Lerner, 1980).

Level of Focus in Procedural Justice Research

Despite the centrality of *justice* to the notion of procedural justice, most theoretical perspectives and empirical work on procedural justice have predominantly focused on *fairness* motives and concerns on an individual basis and at an interpersonal level, as opposed to *justice* motives and concerns at a group/collective, societal, and institutional level—except for the moral value perspective which emphasizes justice at a universal level, that is, what is right and just for a large collective of the entire mankind (Folger, 1998).

In this chapter, we argue that even though the construct has been labeled justice, most empirical studies on the effect of procedural justice have examined for the most part dynamics and motives at an interpersonal level. That is, researchers have been interested in how people as individuals react to different decision-making procedures, enacted by an authority such as their supervisor or an organization, that directly affect them and their individual outcomes (for a review, see Tyler & Blader, 2000; Colquitt & Greenberg, 2005). In contrast, very little attention has been given to how people react to different decision-making procedures that affect group outcomes and the overall stability and integrity of their group, institution, or society (Lerner, 1980; Leung, Tong, & Lind, 2007; Rawls, 1999; Tyler et al., 1997). Given the theoretical distinction between relational versus collective motives associated with people's relational versus collective selves (Brewer & Chen, 2007; Brewer & Gardner, 1996; Sedikides & Brewer, 2001: Yuki, Chapter 12, this volume), it is important that procedural justice researchers differentiate *fairness* derived from relational concerns from *justice* emanating from collective/group concerns.

Relational Fairness versus Collective Justice Justice, as a notion, has existed and been subject to philosophical, legal, and theological reflection and debate throughout human history. Indeed, the discussion of justice can be found in Plato's *Republic*, Socrates' teachings, Jean-Jacques Rousseau's *Du Contrat Social* (1762), and in the ideas of Adam Smith (1776). The concept of justice is associated with humanitarian and ethical standards that prescribe how we should act and how we should treat others, including those with whom we do not have close relationships (Miller, 2001; Ryan, 1998). Moreover, justice has also been argued

as a conception of social contract agreed upon by people willing to set aside their individual preferences for the sake of preserving the stability, order, and integrity of their institution and society (Pettit, 1997; Rawls, 1999). Following the philosophical and institutional accounts of justice, we note that most conceptual discussions and operationalizations of justice in the procedural justice research rarely involve collectives or groups as the target level of focus, as the notion "justice for all" implies. Instead, it is the exchange between an individual and an authority, a group, or an organization to which he or she belongs that has dominated the target of focus in the procedural justice research. Below we discuss in detail the relational models in the existing procedural justice literature that share the emphasis of the *relational* and *self*-relevant implications of procedural justice.

The first relational model proposed in the procedural justice literature is the group value model (Lind & Tyler, 1988). It posits that people are concerned about the fairness of the procedures used by the group not only because fair procedures increase the long-term stability of the resources they wish to obtain from the group, but more importantly, because the fairness of the procedures also sends a symbolic message that they are valued by the group and worthy of receiving respectful treatment. Such information, therefore, informs people of their own status within the group and enhances people's sense of esteem and identity (e.g., Koper et al., 1993; Tyler & Smith, 1999).

The second is the relational model of authority (Tyler & Lind, 1992), which explicitly and directly places focus on the *interpersonal* treatment of the individual by the authorities representing the groups to which the individual belongs. It posits that group authorities do not just distribute resources and enact group procedures in making decisions that affect group members, but they also communicate information about the person's value to the group. Thus, extending the group value model, the relational model of authorities highlights the important role that group authorities or leaders play in communicating esteem-relevant information to the group members. Specifically, the model defines fair treatment by group authorities in terms of three elements: (1) evaluations of whether authorities' motives can be trusted (benevolence), (2) judgments about whether authorities' actions are based upon the nonbiased examination of facts (neutrality; Chen, Chen, & Xin, 2004), and (3) evaluations of the degree to which authorities are treating people with the dignity and respect deserved by those with full-fledged group members, that is, status recognition within the group (Tyler, 1989; Tyler & Blader, 2000). Empirical studies yield strong support for such assertions and show that those high on need to belong—that is, concerns

for rejection or acceptance from other individuals—are particularly attuned to interpersonal treatment by the authorities in forming their procedural justice judgments (De Cremer & Blader, 2006; Lind, 2001; Tyler & Blader, 2002).

Finally, integrating the insights from both the group value model (Lind & Tyler, 1988) and the relational model of authority (Tyler & Lind, 1992), the group engagement model (Tyler & Blader, 2000, 2003) seeks to shed light on why people engage in their groups psychologically and behaviorally and to what extent procedural fairness plays a role in these dynamics. Specifically, it predicts that identity judgments are the primary factors shaping attitudes, values, and cooperative behaviors in groups. Three aspects of identity are the center of the model: identification, pride, and respect (Tyler & Blader, 2003). As in social identity theory (Hogg & Abrams, 1988; Tajfel & Turner, 1979), identification here refers to the *depersonalized* transformation of seeing the self and others in the group no longer represented as individuals with unique attributes and differences but rather as embodiments of a common shared social category (Turner et al., 1987). Pride reflects the individual's evaluation of the status of his or her group relative to other groups (Mael & Ashforth, 1992; Hogg & Terry, 2000), while respect reflects the individual's evaluation of his or her own status within the group (Doosje, Ellemers, & Spears, 1995). Thus, pride concerns status between one's in-group and out-group, and respect pertains to the individual's intra-group status. Pride and respect (status indicators) together are argued to influence people's identification with the group. The group engagement model further argues that when people seek social identity assessments, one aspect of their groups to which they pay close attention is the procedures of the groups to which they belong, and in particular the *interpersonal treatment* by the leaders/authorities of the group, because it carries the most identity, esteem-relevant information. The model also suggests that people's discretionary helping behavior toward their group is likely to be more strongly associated with the relative level of respect (quality of treatment) they receive from the group. Note that all three models discussed place a great deal of emphasis on the aspect of interpersonal treatment in people's procedural justice judgments—that is, how an individual is treated by the group, as in the group value model, or by an authority representing the group, as in the relational model of authority and the group engagement model. In fact, the interpersonal aspects of procedural justice have gained so much attention and impact in the justice research that some justice researchers have given it a separate label, "interactional justice" (Bies & Moag, 1986; Tyler & Bies, 1990), so as to differentiate it from the formal procedures

of decision-making. Although we recognize the importance and the powerful impact of interpersonal treatment in people's procedural fairness judgments and the subsequent effects of these judgments on the support, commitment, and cooperation that people exhibit toward their groups and authorities of the groups, in our view the focus of these models is predominantly interpersonal and relational in nature and mostly about fairness for an individual, despite their strong associations with social identity theory (Tajfel & Turner, 1986) and social categorization theory (Turner et al., 1987) in their theoretical formulation. Given such a relational focus, unsurprisingly important moderating variables that have been identified for the effect of procedural justice include need to belong (van Prooijen, van den Bos, & Wilke, 2004), concern for reputation (De Cremer & Tyler, 2005), and self-esteem (Brockner et al., 1998; Wiesenfeld, Swann, Brockner, & Bartel, 2007). Interpersonal trust in the benevolence of authority has also been found to constitute a key basis for cooperation, as evidenced in several empirical studies (Brockner, Siegel, Tyler, & Martin, 1997; Korsgaard, Schweiger, & Sapienza, 1995; McFarlin & Sweeney, 1992). Of greatest importance, there is direct evidence for the role of the relational self in such dynamics. Specifically, those high on interdependent self-construal have been found to be more significantly affected by procedural justice judgments than their counterparts who are low on interdependent self-construal (Brockner et al., 2000; De Cremer et al., 2005). Thus, both conceptual models and empirical focus in the procedural justice research have been mostly on the relational self and dynamics associated with the relational aspect of one's self-identities. As we argued above, it is important that justice researchers differentiate social motives emanating from concerns about one's individual standing within the group from social motives originating from concern about the overall integrity, stability, and well-being of one's social group. None of the relational models discussed above focus on the latter, for example, the influence of how group members as a whole are treated by the authorities or the organization in people's procedural justice judgments and how such judgments might in turn affect their evaluations of the authorities and attachment to the organization.

What then might be the relevant social motives if people's collective self is activated? According to Hogg, Hohman, and Rivera (2008), three social psychological theories—the sociometer theory (Leary, 1999), terror management theory (Solomon, Greenberg, & Pyszczynski, 1991), and uncertainty–identity theory (Hogg, 2007)—offer insights as to why people join and identify with groups. The sociometer theory argues that people have a need to be socially included by others, and that

self-esteem is a meter of successful social inclusion and belonging.* Terror management theory posits that people are motivated to reduce fear of the inevitability of their own death, and that the consensual belief–confirmation provided by groups drives people to belong. The uncertainty–identity theory stipulates that people have a basic need to reduce uncertainty about themselves, their attributes, and their place in the world, and that cognitive processes associated with group identification reduce such uncertainty. Thus, in addition to the need to belong and self-esteem, both terror management theory and uncertainty–identity theory draw attention to the importance of the security and uncertainty reduction functions of groups to individuals.

Evolutionary psychology has also long noted that security and uncertainty reduction are important drivers for why people join social groups (Brewer & Caporael, 2006; Caporael, 1997). Coordinated group living has been the primary survival strategy of the human species throughout the entire human evolution. The social group provides an essential buffer between the individual organisms and the exigencies of the physical environment. Given the morphology and ecology of evolving hominids, group processes provide an effective interface between hominids and their habitat. For example, defense from predators, finding food, moving across a landscape in ancient times, or staying competitive in today's competitive and dynamic marketplace all require highly coordinated group processes. Moreover, once people form a strong identification with their social groups, that is, having gone through the depersonalized transformation of no longer seeing themselves and others in their group as individuals with unique attributes and characteristics, but as embodiments of a common shared social category, according to social categorization theory (Turner et al., 1987), people should subsequently experience a goal transformation from a focus on individual treatment to a focus on treatment of the group as a whole. Accordingly, we argue that when collective identity with one's group is well established and activated, the basis for procedural justice judgment would be much less about benevolence trustworthiness of the authorities or the relative standing of one's status within the group, which are primary motives of one's relational self and individual self. Instead, the prominent concerns in people's mind would be

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* Note that people's need to belong can emerge in both interpersonal and group settings. Scholars studying need to belong, however, have not made a clear distinction between people's concern for rejection or acceptance by other individuals and their concern for inclusion to social groups. Close inspection of the need-to-belong measure reveals a relational focus of the items.

the integrity and trustworthiness of the authority (Chen et al., 2004) and the overall stability, integrity, and well-being of the group.

Recent research on procedural justice climate provides evidence for our reasoning here (Colquitt, Noe, & Jackson, 2002; Mossholder, Bennett, & Martin, 1998; Naumann & Bennett, 2000; Yang, Mossholder, & Peng, 2007). It has been shown that the effects of justice are more powerful when all or most of the group members have been treated fairly, relative to the case when only one or a few members have been treated fairly (Naumann & Bennett, 2000). In addition, Liao and Rupp (2005) recently reported that mean levels of work group members' individual justice perceptions predicted employee commitment and citizenship behavior beyond that explained by their unaggregated procedural justice perceptions. Thus, people's support for and cooperation with the authority/group leader and their group is affected not only by perceptions of their own personal treatment but also by perceptions of how most other group members have been treated.

Empirical Evidence in Support of the Relational versus Collective Distinction
A recent study by Chen and Brewer (2010) showed preliminary support for the relational versus collective distinction of procedural justice judgments that we proposed above. They posit that one way to test whether people make a distinction between fairness at an interpersonal/relational level versus justice at a collective/group level is to examine how people react to their manager when all the other members in their group are given an opportunity to provide voice to an important organizational decision while they themselves are not. When faced with such a situation, people naturally would react negatively toward their manager and raise doubts about the nature of their relationship with the manager, especially in comparison with a situation in which they are given an opportunity to voice their views on the decision. However, the manager, as a leader of the group, does provide voice to most members in the group (except for the focal individual), showing respect to the group in general and concern for input from the group. Note that the opportunity to voice one's opinion has been one of the most frequently studied procedural justice variable in the literature since the seminal work by Thibaut and Walker (1975).

As Chen and Brewer (2010) reasoned, people's reactions toward their manager, such as trust in him or her, depends on whether people's relational self or collective self is activated. People have both a supervisor–subordinate dyadic relationship with their manager as well as a leader–follower collective relationship with their manager. As Chen and Brewer (2010) also noted, most leadership models have taken on an

individualistic or dyadic focus. The trait theory of leadership assumes that leadership is rooted in the characteristics or traits of individuals (Carlyle, 1907; House, Spangler, & Woycke, 1991), while transactional theory (Hollander, 1964), transformational theory (Bass, 1985), and the Leader–Member Exchange model (Graen & Scandura, 1987; Graen & Uhl-Bien, 1995; Schriesheim et al., 1999) all place the dyadic exchange between a leader and a follower center stage in their conceptualization. Even the recent social identity perspective on leadership (e.g., Van Knippenberg & Hogg, 2003) is still formulated with a strong individual focus, replacing idiosyncratic individualistic traits of the leaders with group-prototypical characteristics of the leaders.

However, the need for and the main function of leadership is enacted in the setting of groups or collectives. Individual traits and group-prototypical characteristics might help a person to achieve leadership status in a group and give them greater influence, and those in the leadership positions might have the capacity to inspire or motivate an individual group member at an interpersonal level. However, to be an effective leader, an individual must be able to mobilize and direct a group of followers toward group or organizational mission or vision and be able to maintain stability and group harmony (e.g., Chemers, 1997; Yukl, 2002). Even though interpersonal dynamics can have proud influence on group dynamics, interpersonal dynamics and group dynamics are far from the same.

Given the core focus of groups and collectives in the leadership notion, and the collective values of group integrity and stability, Chen and Brewer (2010) proposed that when face with the information in which all the group members except themselves are provided with a voice opportunity, people are likely to show much less trust in their manager when the manager is evaluated as a supervisor than when the manger is evaluated as a group leader. They argued that when evaluating their manager as a supervisor, people are likely to make procedural fairness judgments at an interpersonal level, based on cognition and social motives emanating from their relational self. In contrast, when people are asked to assess their manager as a leader for their group, people's collective motives for group stability and integrity will be activated, making them attach greater importance to how the manager treats the group as a whole. The empirical evidence that they found in the study supported their reasoning. In a scenario study involving 108 participants of general managers and CEOs in China, Chen and Brewer (2010) employed a 2 (voice: presence vs. absence) by 2 (consistency: yes, including both self and all the other group members, vs. no, self or all the other group members)

within-subject design. The scenario described how a general manager of a health equipment company made a major selection decision on a new division manager. Procedural justice manipulation pertains to the process in which the general manager made the decision. In one condition, both the focal individual, whose role participants in the study were asked to take on, and all the other group members were described to have been provided with an opportunity to voice their opinions on the selection. In another condition, only the focal individual was given voice, while the other group members were not. In a third condition, the focal individual was not given voice but the other group members were. Finally, in a fourth condition, neither the focal individual nor the other group members were given voice. Two dependent variables included were trust in the manager as a supervisor and trust in the manager as a leader. A sample item for trust in the manager as a supervisor is, "To what extent did the General Manager group concern for your well-being in the company?" A sample item for trust in the manager as group leader is, "To what extent do you feel that the General Manager can be counted on as a leader for the future success of the company?"

The results showed that while voice had a significant main effect on both relational/supervisor evaluation and collective/leader evaluation, the voice effect was significantly stronger on relational/supervisor evaluation than on collective/leader evaluation. Moreover, replicating a previous finding of the moderating effect of power distance on voice (Brockner et al., 2001), the effect of voice was significantly stronger among those low on power distance than among those high on power distance, but only on the dependent variable of relational/supervisor evaluation. When the manager is evaluated as a group leader, however, power distance showed no moderating effect on voice. There was only a main effect of voice.

Of greatest importance, there was a significant two-way interaction between voice and consistency on evaluations of relational/supervisor versus collective/leader. On the relational/supervisor evaluation, participants showed the lowest level of trust in the general manager when the participant taking on the role of the focal individual in the scenario was not provided with an opportunity to voice while all other group members were, in comparison with responses in all the other three conditions. In contrast, on the collective/leader evaluation, participants exhibited the lowest level of trust in the general manager when neither they nor the members in the group were provided voice. Moreover, simple mean comparisons across all four conditions also showed that the largest difference in relational/supervisor versus collective/leader

evaluations occurred in the condition in which the focal individual was not given an opportunity to voice while all the other group members were given the opportunity.

Theoretical Implications and Future Research Directions

The above findings from Chen and Brewer's (2010) study provided several important theoretical implications and future directions to both procedural justice and leadership literatures, which we discuss below. First, in light of the relational versus collective distinction in Brewer and Gardner's (1996) self-identity framework to the procedural justice literature, it becomes apparent that there has been a lack of sufficient attention to the dynamics at the group level in the procedural justice literature (Leung et al., 2007). Most theories and empirical studies in the past have focused on treatment of individuals and dynamics at an interpersonal level (Lind & Tyler, 1988; Tyler & Lind, 1992; Tyler & Blader, 2000, 2003). Future research in the procedural justice domain may benefit from heightened clarity about the aspect of one's self-identity in its inquiry and the distinction of the effects concerning people's relational self versus collective self. Such efforts can potentially provide new intellectual directions and insights with regard to the effects of justice on people's behaviors and attitudes. For example, there may be gender differences in the relative impact of procedural justice at a relational level versus a group level. Women may be more affected by procedural fairness at an interpersonal level, whereas men may be more influenced by procedural justice at a group level. Moreover, it is possible that procedural justice at a group level may have greater influence on people's cooperation with other group members, whereas procedural fairness at an interpersonal level may have more significant impact on people's cooperation with their supervisor. How the group as a whole is procedurally treated by the organization and the authority should convey a normative message concerning how group members should work with each other. Second, Chen and Brewer's (2010) recent findings support our assertion that leadership is more of a group, rather than a relational, notion in people's cognition. As Chemers (1997) has suggested, leadership is "a process of social influence in which one person is able to enlist the aid and support of others in the accomplishment of a common task" (p. 20). Thus, it might be useful for future leadership research to consider followers' assessment of the leader's ability to establish and maintain common goals and a shared identity among group members, and how such assessment affects their loyalty to the leader and the commitment to the group, in addition to the effects of the leader's group prototypical characteristics (Van Knippenberg & Hogg, 2003). Moreover,

future leadership studies may also explore how the extent to which people value group integrity and stability might influence how much their followership is affected by the consistency and neutrality of treatments across all group members by their leaders in comparison with how they are individually treated.

Finally, by applying Brewer and Gardner's (1996) self framework to the procedural justice and leadership research, we not only bring new insights to those domains but also implicitly test the robustness and enduring value of the relational versus collective distinction in Brewer and Gardner's self framework (Chen, Leung, & Chen, 2009). Applying a theory from one domain to another often provides contrasts and forces one to be clear about each domain's core assumptions, and potentially results in a breakthrough (Wagner & Berger, 1985).

CONCLUDING REMARKS

It is clear that the relational versus collective distinction of self-identities has proven to be very important and useful in enhancing our knowledge of multiple social phenomena, including gender difference in interdependence (Cross & Madson, 1997; Gabriel & Gardner, 1999), collectivism in the cross-cultural dimension of individualism–collectivism (Brewer & Chen, 2007), and as we proposed in this chapter, procedural justice and leadership at different levels of analysis. We hope that our arguments presented above and evidence cited here will stimulate further thoughts and empirical inquiries on how the relational self versus the collective self distinction might be of value to other domains of social psychological and organizational research. The results of such efforts should in turn better inform us of the differences and similarities in the psychological and behavioral consequences between relational self and collective self of one's identities.

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IV

Reflections and Conclusion

18

IN RETROSPECT…

Marilynn B. Brewer

Considering the tremendous honor that is represented by having a book such as this dedicated to oneself, it seems the height of self-indulgence to then use this as an occasion for telling my own story. Nonetheless, I have chosen to engage in that indulgence because I could think of no better way to thank the editors and contributors to this volume (and the many others who have influenced my life along the way) than to let them see how significantly they have played a part in that story.

A LUCKY START

I have been the beneficiary of much good fortune throughout my life and career. It began from the time I was born in Chicago in 1942. My parents (Ruth and Henry Bolt) named me Marilynn (with two *n*s, presumably to distinguish me from the then famous actress of a similar name). I attribute much of my success in life to two fortunate aspects of the timing of my birth: First, I was the first child in an extended family household that included proud parents, two doting Swedish grandmothers, and a Great Aunt Lou, providing the foundation for a firm sense of self-esteem (which survived the birth of my sister, Nancy, 3 years later). Second, 1942 proved to be the crest of the wave that was the post-World War II "baby boom," a period of history in which opportunities opened that might otherwise not have been available to a young woman from a lower middle class background.

Although no one in my parents' generation had achieved more than a high school education, my family was convinced that even girls should go to college (preferably to get a teaching credential, so that it would be possible to combine work and family). So, after graduating from high school, I went off to a small liberal arts college in Chicago where I completed a bachelor's degree in the social sciences (North Park College was too small to have majors in single disciplines.) For my family, college education was a novelty, and the concept of an advanced graduate degree was not even on the radar. So a BA and a husband might have been the culmination of my academic career, had it not been for the mentorship of Jean Driscoll, a political scientist and professor at North Park College, who convinced me that I had both the promise and the responsibility to pursue a doctoral degree and an academic career.

From that point forward, my life and career can be roughly divided into three eras, defined in part by geography but more substantially by the social environment of colleagues and students who shaped my intellectual pursuits and research directions. Reflecting on these three eras—and the ideas that dominated my research in each phase— provides me with an opportunity to weave my personal history with some views on social psychology as an evolving discipline.

THE CHICAGO ERA: DONALD CAMPBELL, EPISTEMOLOGY, AND THE CROSS-CULTURAL STUDY OF ETHNOCENTRISM

In 1964, institutions of higher education in the United States were gearing up for the anticipated onslaught of baby boomers who would be reaching college age in a few years. Demand for PhDs to fill teaching positions in research universities and liberal arts colleges was high; doors were open to women as well as men, and federally funded graduate fellowships were widely available. In that context, I applied to and was admitted to the doctoral program at Northwestern University and awarded a National Institute of Mental Health (NIMH) fellowship to support my graduate work.

At Northwestern, I found more good fortune in having Donald T. Campbell as my primary advisor and mentor. Although nominally being trained in the field of social psychology, I found that working with Don Campbell was an education in epistemology, evolutionary theory, and research methodology all writ large. I gradually honed my intellectual debating skills arguing with Don over issues of human

nature and the "selfish gene," learning that Don was always open to a good argument, but never actually changed his mind. During this time, my partner in crime was fellow graduate student Bill Crano. Although Bill and I went on to pursue very different lines of research, our shared commitment to the Campbellian tradition of research methodology led to a lifetime friendship and collaboration on a series of research methodology texts that stand as a tribute to our "uncommon common mentor."

In 1966, I married Robert Brewer (also a social psychologist), and Marilynn Bolt became Marilynn B. Brewer at the time that my master's thesis (on the then "hot" topic of adding vs. averaging models of information integration in person perception [Brewer, 1968a]) was accepted for publication in the *Journal of Personality and Social Psychology.*

Shortly after that, Don Campbell invited me to become project director for an interdisciplinary program of research entitled the Cross-Cultural Study of Ethnocentrism (CCSE). The CCSE project, funded by the Carnegie Foundation, was an ambitious collaborative effort led by Campbell and Robert A. Levine, an anthropologist from the University of Chicago. Combining ethnographic methods and structured interview surveys in sites all over the world, the goal of the project was to test the universality of certain principles of in-group favoritism and intergroup relations—pretty heady stuff for a still-fledgling social scientist. One aspect of the CCSE—a survey study of intergroup perceptions in East Africa—became the basis for my doctoral dissertation research and a later book coauthored with Don (Brewer & Campbell, 1976). Apart from these tangible products, the questions posed by the CCSE project—questions of group identity and intergroup behavior—became the key questions that I would pursue throughout my research career.

From the Cross-Cultural Study of Ethnocentrism to the Minimal Group Paradigm

The term *ethnocentrism* was coined by William Graham Sumner in his book *Folkways* (1906). The concept was driven by the observation that human social arrangements are universally characterized by differentiation between in-groups and out-groups—the we–they distinctions that demarcate boundaries of loyalty and cooperation among individuals. Attitudes and values are shaped by this in-group–out-group distinction in that individuals view all others from the perspective of the in-group.

In a volume that provided the theoretical background for the CCSE, Levine and Campbell (1972) identified 23 facets of culture that differentiate attitudes, perceptions, and behaviors toward the in-group from those directed toward out-groups. Based on Sumner's observations, they derived a list of characteristics of the ethnocentrism syndrome, including viewing "us" as virtuous and superior, "them" as immoral and inferior; viewing "us" as peace-loving and cooperative, "them" as treacherous and untrustworthy; loyalty, respect, and obedience toward in-group authority, contempt for out-group authority; and differential sanctions for acts of aggression toward in-group versus out-group members. To test the idea that these ethnocentric orientations are characteristic of human society, the CCSE project (funded by a grant from the Carnegie Foundation) introduced a novel method of data collection designed to blend ethnographic case study and structured interview techniques. Experienced ethnographers in field sites in Africa, New Guinea, North America, and Asia were commissioned to use their best local informants to obtain information on precolonial in-group organization and intergroup attitudes, using a structured, open-ended interview format.

Back in Evanston, Illinois, as graduate research associate for the project, I was responsible for processing, organizing, and archiving the field notes from each of the project sites as they were submitted by the ethnographers. That experience exposed me to the rich detail of ethnographic accounts of social behavior and provided exotic examples of customs, practices, and beliefs that reveal the enormous range of ways in which groups manage both intragroup and intergroup relationships. It also established in me a fascination with the study of group identity and intergroup attitudes that determined my research career path in social psychology from that point on.

When the data collection phase of the CCSE project was complete, the field notes (retyped in standardized format) were archived with the Human Relations Area Files at Yale University, where they are available in bound form as a HRAFlex book series (Brewer, 1972). The series contains transcripts of detailed interviews with informants from 19 cultures, in many cases representing discussions with the last living members of those societies who had personal memories of life prior to European contact. To this day, those interviews constitute a yet largely unmined source of rich data about intergroup relations, attitudes, and stereotypes among small, stateless societies in precolonial times. By the time the interviews had been systematized and archived, Levine, Campbell, and I had all moved on to other projects, including analyzing the results of the large-scale survey study that we had conducted in East Africa as

an adjunct to the CCSE ethnographic data collection (Brewer, 1968b; Brewer & Campbell, 1976). However, that initial immersion in cross-cultural investigation of social relations left an indelible mark on my own thinking about human nature and social group behavior.

The CCSE project did provide some evidence relevant to Sumner's original hypotheses about the nature of ethnocentrism and human societies. Both qualitative and quantitative analyses of the coded interviews and survey responses confirmed the robustness of the tendency to differentiate the social environment in terms of in-group–out-group distinctions and to value in-group characteristics over those of other groups. Interestingly, however, the findings did *not* confirm Sumner's basic assumption about the reciprocal nature of in-group and out-group relations.

In his initial portrayal of the ethnocentrism syndrome, Sumner (1906) included negative attitudes toward out-groups as well as positive feelings and evaluations of the in-group. Further, he assumed an explicit negative correlation between in-group and out-group attitudes such that the greater the attachment and solidarity within the in-group, the greater the hostility and contempt directed toward out-groups. This hypothesized relationship between in-group love and out-group hate derived from Sumner's functional theory of the origins of social groups and intergroup conflict.

Contrary to this strong position that in-group and out-group orientations are mutually reinforcing and arise from the same conditions of intergroup conflict and competition over scarce resources, our interviews with representatives of nonwestern societies revealed a wide range of attitudes toward recognized out-groups, from respect and mutual admiration to relative indifference to outright hostility. As one of our informants put it "we have our ways and they have their ways," and preference for the in-group ways did not necessarily require intolerance of the out-group. Further, the level of in-group cohesion and loyalty did not appear to be correlated with the degree of negativity of attitudes toward out-groups (Brewer & Campbell, 1976). Thus, it was the experience gained from the CCSE project that first convinced me that in-group preference and out-group prejudice are two different things. Although related, the two have different origins and different consequences for intergroup behavior (Brewer, 1999, 2001).

Approximately simultaneously with the data collection phase of the CCSE project, Henri Tajfel's social psychology research group in Bristol, England, was developing a very different paradigm for studying in-group bias and intergroup discrimination. In a laboratory setting, experiments with the so-called minimal intergroup situation provided

a powerful demonstration that merely classifying individuals into arbitrary distinct social categories was sufficient to produce in-group–out-group discrimination and bias, even in the absence of any interactions with fellow group members or any history of competition or conflict between the groups.*

Remarkably, results of the cross-cultural field research and these laboratory studies converged in confirming the power of we–they distinctions to produce differential evaluation, liking, and treatment of other persons depending on whether they are identified as members of the in-group category or not. The laboratory experiments with the minimal intergroup situation demonstrated that ethnocentric loyalty and bias clearly do not depend on kinship or an extensive history of interpersonal relationships among group members, but can apparently be engaged readily by symbolic manipulations that imply shared identity and a clear distinction of who is "us" and who is "them"—a rule of exclusion as well as inclusion.

Experiments with the minimal intergroup situation also provided additional evidence that in-group favoritism is prior to, and not necessarily associated with, out-group negativity or hostility (Brewer, 1979). This is not to say that in-group-based discrimination is benign or inconsequential. Indeed, many forms of institutional racism and sexism are probably attributable to discrimination based on in-group preference rather than prejudice against out-groups. Nonetheless, the absence of positive regard and lack of trust for out-groups that is characteristic of most in-group–out-group differentiation can be conceptually and empirically distinguished from the presence of active hostility, distrust, and hate for out-groups that characterizes virulent prejudice.

1968: A Watershed Year

Returning to the biographical story line, 1968 marked major turning points in my life. In that year, I completed my PhD and shortly thereafter gave birth to a daughter, Christine. All this in the midst of the Chicago Democratic Convention and anti-Vietnam War protests—events that awakened my political sensibilities and cemented my interest in understanding group allegiance and conflict. I stayed at Northwestern for another 2 years as a postdoc on the CCSE project and then took my first faculty position at Loyola University of Chicago in 1972.

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* In 1980, I had the opportunity to spend a sabbatical semester at the University of Bristol and gain first-hand experience with the conduct of minimal group experiments and their analysis.

THE CALIFORNIA ERA: SOCIAL COGNITION, SOCIAL DILEMMAS, AND SOCIAL IDENTITY

Two years later (now divorced and a single mom), it occurred to me that I had spent my entire life and academic career within a 10-mile radius of my childhood home in Chicago. This revelation came in the middle of a particularly bitter Chicago winter, and the prospect of warmer climes beckoned. Again benefiting from the rich opportunities available in academia at the time, I was offered, and accepted, a position as associate professor (with tenure) at the University of California, Santa Barbara, and Christine and I moved west.

At UCSB, colleagues David Messick and Chuck McClintock introduced me to exciting experimental paradigms for studying group identity and behavior in the laboratory, and David Hamilton enticed me to join the social cognition "revolution" in social psychology. The interface between social cognition and social identity proved to be the intellectual niche that has defined much of my research contributions ever since.

The more cognitive side of my program of research on intergroup relations began with work on stereotypes as prototypic representations of social categories. Supported by a grant from the National Institute on Aging, I tested these ideas on stereotypes of the elderly (Brewer, Dull, & Lui, 1981). My research on the structure and consequences of social stereotyping culminated in a theory paper presenting a "dual process" model of social information processing (Brewer, 1988). The model postulates a distinction between category-based social perception (which is a top-down process driven by categorization and subcategorization) and personalized social perception (which is a bottom-up processing mode driven by self-referencing). This distinction is relevant to person perception in intergroup (vs. intragroup) situations and formed the grounding for my subsequent work on reducing intergroup prejudices through personalized contact.

The Contact Hypothesis and a Laboratory Paradigm

For many American social psychologists who do research on intergroup relations and prejudice, the study of race relations in the United States constituted the prototypical case that both motivated and informed their interest in this field of research. It was impossible to be a researcher interested in the study of intergroup relations and not get involved in the civil rights movement of the 1960s and 1970s and the social policy issues surrounding desegregation and affirmative action that ensued. Inspired in part by Gordon Allport's classic 1954 book on

The Nature of Prejudice and the social science statement submitted as part of an amicus brief to the Supreme Court in the *Brown v. Board of Education of Topeka* (1954) case in that same year, the so-called contact hypothesis became social psychology's focal contribution to prescriptions for reducing intergroup prejudice. The history of the contact hypothesis and its influence on social policy provided the backdrop for the next phase of my own program of research on intergroup relations, after the CCSE.

The basic idea behind the original contact hypothesis was elegantly simple: if separation and unfamiliarity breed stereotypes and intergroup prejudice (negative attitudes, hostility), then these effects should be reversible by promoting contact and increased familiarity between members of different groups or social categories. The underlying theoretical assumptions were that contact under cooperative interactive conditions provides opportunity for positive experiences with out-group members that disconfirm or undermine previous negative attitudes and ultimately change attitudes toward and beliefs about the group as a whole. But contact theory was born in the crucible of racial conflict, and research on the effects of contact during the 1960s and 1970s took place almost entirely in highly politicized field contexts (i.e., schools, public housing, and the military) where a multitude of variables determined the social and psychological conditions of contact and the success or failure of the contact experiences. As a consequence, the contact hypothesis itself accumulated a growing list of qualifiers and modifications (beyond the initial list of equal status, intimate, and cooperative contact) based primarily on experience rather than underlying theory.

By 1980, it was apparent that contact research needed a more elaborated theory of what the underlying processes are and how they mediate the effects of intergroup contact under different conditions. At that time, it seemed to me that the implications of the minimal group paradigm experiments and the theory of social categorization and social identity that these experiments gave rise to in European social psychology could be brought to bear on contact research in the United States. First, the minimal intergroup experiments had demonstrated that intergroup processes could be created and studied in the laboratory, providing a potential testing ground for hypothesized effects of proposed interventions to reduce intergroup discrimination and hostility. Second, social categorization theory could provide a conceptual framework for understanding the processes by which intergroup contact might produce changes in intergroup attitudes and behavior.

Both of these ideas were further developed in a chapter that Norman Miller and I wrote for our edited volume on the contact hypothesis

(Brewer & Miller, 1984). In that chapter, we hypothesized that the effectiveness of intergroup contact for reducing prejudice and in-group bias would depend on whether the conditions of contact promoted *person-based* or *category-based* information processing. If category membership remains a salient feature of the contact situation, contact merely reinforces in-group–out-group differentiation and associated ethnocentric biases. However, if the interaction context encourages personalized attention to individual group members, then a process of *decategorization* should result that eliminates category-based favoritism and prejudices. Further, we contended that personalized contact experiences would generalize beyond the contact setting because through personalization experiences, categories lose their diagnostic significance as a way of organizing cognitive representations of the situation. Repeated experiences in which category boundaries are made less salient eventually reduce the social meaningfulness of the category distinction itself. As categories become less socially meaningful, category-based processing and associated category-based biases are reduced in general.

To test these ideas, we undertook a program of research using a laboratory paradigm derived from the minimal intergroup situation. As in the original experiments, participants in this paradigm are first divided into arbitrary social categories based on a meaningless classification task. Going beyond the minimal conditions, however, the participants assigned to the two categories are then separated to talk or work together in their respective in-groups. Following this in-group formation phase, representatives from both categories are then brought together to participate in an interactive, cooperative team effort. (During the interactive contact, group members wear colors or badges that clearly indicate their category identity throughout the contact period.) The phases of the experiment are designed to provide a laboratory "analogue" for intergroup segregation and desegregation (contact) in the real world. The conditions of the cooperative contact could then be systematically manipulated to alter the cognitive representation of the interaction context from an intergroup situation characterized by category-based information processing to an interpersonal situation characterized by person-based information processing.

A program of studies using this laboratory paradigm confirmed our hypotheses that cooperative contact would be most likely to reduce category-based processing when the nature of the interaction in the contact situation promotes an interpersonal orientation rather than a task orientation to fellow participants (Bettencourt, Brewer, Croak, & Miller, 1992; Miller, Brewer, & Edwards, 1985), and the assignment of roles, status, and functions in the cooperative system is independent of

category membership (Marcus-Newhall, Miller, Holtz, & Brewer, 1993). These studies led to my long-standing interest in personalized contact and cross-categorization as mechanisms for prejudice reduction and positive intergroup relations (Brewer, 1997, 2007).

Social Dilemmas: The Role of In-Group Identity in Human Cooperation

At the same time that Norman Miller and I were developing our program of research on intergroup contact, I also began a collaboration with Dave Messick involving laboratory paradigms for studying social dilemmas (Messick & Brewer, 1983). Social dilemmas constitute a special set of interdependence problems in which individual and collective interests are at odds. The dilemma arises whenever individuals acting in their own rational self-interest would engage in behaviors that cumulatively disadvantage everyone. In the modern world, social dilemmas include problems of maintaining scarce collective resources such as water and rainforests, preserving public goods such as parks and public television, and preventing pollution and destruction of the environment. The self-interests of each individual are best served by taking advantage of the benefits of collective resources without contributing to their maintenance, but the cumulative effect of such self-interested actions would be that everyone pays the cost of resource depletion and environmental damage. To the extent that social life is characterized by these types of interdependencies, some mechanisms for balancing individual interests and collective welfare must be achieved.

When I first learned about the social dilemma paradigm from my colleagues at UCSB (which at that time included Robyn Dawes who was there as a visiting professor), I realized that this provided a platform for studying the role of group identity in individual decision making and social motivation. Our lab group developed one of the first computerized laboratory paradigms for studying behavior in resource dilemma situations (Messick et al., 1983). Utilizing this paradigm, Rod Kramer and I conducted a series of experiments that demonstrated that when a symbolic collective identity has been made salient, individuals respond to a resource crisis by dramatically reducing their own resource use (Kramer & Brewer, 1984; Brewer & Kramer, 1986).

In addition to exploring effects of group identity, the research on social dilemmas sparked a renewal of my interest in the evolutionary basis of human sociality—an interest honed by debates with my mentor, Don Campbell, during my graduate and postdoctoral days. The renewal was stimulated by another good stroke of fortune when I met a brilliant undergraduate student at UCSB named Linnda Caporael.

A returning student and, like me, a single mom (with a son the same age as my daughter), Linnda and I became good friends. We shared a house in Santa Barbara during the time she worked on her doctoral degree in developmental psychology at UCSB, and many wine-fueled dinnertime conversations about human nature and "just-so" stories eventually led to our long-term collaborative efforts to bring an evolutionary perspective to psychology based on understanding humans as a group-living species (e.g., Caporael & Brewer, 1991; Brewer & Caporael, 2006).

The Move to University of California, Los Angeles

After nine years on the faculty at UCSB, which included a stint as department chair, I moved south to UCLA as Professor of Psychology and Director of the Institute for Social Science Research. Continuing collaborations with Norman Miller at USC and new collaborations with Jim Sidanius at UCLA expanded my experimental research on intergroup behavior and reducing prejudice and discrimination. This was also the time when my interest in understanding the motivations underlying group identification and its roots in human evolution culminated in the publication of the theory of "optimal distinctiveness" (Brewer, 1991), positing that social identity is regulated by opposing drives for belonging and differentiation that motivate social identification with distinctive groups that satisfy both needs simultaneously.

The Origins of Optimal Distinctiveness Theory

Most behavioral scientists today accept the basic premise that human beings are adapted for group living. Even a cursory review of the physical endowments of our species—weak, hairless, extended infancy—makes it clear that we are not suited for survival as lone individuals, or even as small family units. Many of the evolved characteristics that have permitted humans to adapt to a wide range of physical environments, such as omnivorousness and tool making, create dependence on collective knowledge and cooperative information sharing. As a consequence, human beings are characterized by *obligatory interdependence* (Caporael & Brewer, 1995), and our evolutionary history is a story of coevolution of genetic endowment, social structure, and culture.

If individual humans cannot survive outside of groups, then the structural requirements for sustaining groups create systematic constraints on individual biological and psychological adaptations. What I am talking about here is what Don Campbell called downward causation across system levels. Downward causation operates whenever structural requirements at higher levels of organization determine some aspects of structure and function at lower levels (a kind of reverse

reductionism). Optimal distinctiveness theory was in part the product of an exercise in thinking about downward causation from the group to the individual level of analysis.

The advantage of extending social interdependence and cooperation to an ever wider circle of conspecifics comes from the ability to exploit resources across an expanded territory and buffer the effects of temporary depletions or scarcities in any one local environment. But expansion comes at the cost of increased demands on obligatory sharing and regulation of reciprocal cooperation. Both the carrying capacity of physical resources and the capacity for distribution of resources, aid, and information inevitably constrain the potential size of cooperating social networks. Thus, effective social groups must be restricted to some optimal size—sufficiently large and inclusive enough to realize the advantages of extended cooperation, but sufficiently exclusive to avoid the disadvantages of spreading social interdependence too thin.

Based on this analysis of one structural requirement for group survival, I hypothesized that the conflicting benefits and costs associated with expanding group size would have shaped social motivational systems at the individual level. A unidirectional drive for inclusion would not have been adaptive without a counteracting drive for differentiation and exclusion. Opposing motives hold each other in check, with the result that human beings are not comfortable either in isolation or in huge collectives. These social motives at the individual level create a propensity for adhering to social groups that are both bounded and distinctive. As a consequence, groups that are optimal in size are those that will elicit the greatest levels of member loyalty, conformity, and cooperation, and the fit between individual psychology and group structure is ensured.*

THE OHIO ERA: EVOLUTION, CULTURE, AND SOCIAL IDENTITY COMPLEXITY

I loved living in Southern California and fully expected to stay at UCLA for the rest of my active life. But in 1993, I was lured back to the midwest with the offer of an Eminent Scholar position in social psychology at the Ohio State University. The vibrant and cohesive social psychology program at OSU provided the academic home for the last 15 years of my academic career.

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* For a review of optimal distinctiveness theory and related research, see Leonardelli, Pickett, and Brewer (2010).

By that time, my focus on in-group identity and loyalty turned toward investigating the role of group membership in motivating more positive aspects of human social behavior, exploring further how shared group membership provides a basis for depersonalized trust and cooperation that is essential for much social exchange and collective action. With Wendi Gardner, I extended my interest in group identity to other aspects of the social self, drawing a distinction between interpersonal (relational) social identities and collective (group) identities (Brewer & Gardner, 1996). Later on, work with Masaki Yuki and with Yaru Chen used this distinction to analyze cultural differences in the nature of group identity (Brewer & Yuki, 2007) and the meaning of collectivism (Brewer & Chen, 2007).

As a theory of group identity, optimal distinctiveness theory leads to the conclusion that there are limits on the degree of inclusiveness that defines any one in-group identity. This limitation motivated my search for mechanisms that will increase capacity for inclusiveness and led to the development of social identity complexity theory (Roccas & Brewer, 2002), conceptualizing the ways in which individuals subjectively represent the relationships among their multiple in-group memberships and how this moderates attitudes toward diversity and intergroup relations. Continuing research on social identity complexity represents my commitment to learning how strong positive social identity can be compatible with intergroup acceptance and cooperation.

AND NOW … THE AUSTRALIA ERA

At the end of 2008, I officially retired from Ohio State University and fulfilled a long-standing dream to immigrate to Australia, where I now live in Sydney. Fortunately, my retirement has not been "cold turkey," thanks to an affiliation with the School of Psychology at the University of New South Wales. I am grateful to my colleagues and students here who are giving me the opportunity to stay research-active for a few more years yet.

ON ACCOLADES AND ACKNOWLEDGMENTS

I have had more than my share of honors and recognition during my 40-year career. I have had the privilege of serving as president of the Western Psychological Association, the Midwestern Psychological Association, the Society for Personality and Social Psychology, the Society for the Psychological Student of Social Issues, and the Association of

Psychological Science (nee American Psychological Society). In 2004, I was elected a fellow of the American Academy of Arts and Science, and I have also been honored with distinguished career awards from the Society of Experimental Social Psychology, the International Society of Self and Identity, the International Society of Political Psychology, and the American Psychological Association. In accepting these individualized awards, I have always been acutely aware that psychological science is a team effort and that I have benefited enormously from the wealth of support, collaboration, and idea exchange provided by students and colleagues throughout my career. Thus, it is very fitting that I close this chapter by explicitly recognizing the graduate students and postdoctoral scholars who joined me at the different stages of my career and rightly deserve to be corecipients of the awards I have received.

I have been extremely fortunate to have had bright, creative, and dedicated students who chose to spend some or all of their graduate careers with me at each university along the way. From my very first graduate student (Susan Green) at Loyola University of Chicago to the exceptional group of students who worked with me at UCSB (Glenn Reeder, Valerie Dull, Layton Lui, Patty English-Zemke, Rod Kramer), it was student collaborations that got ideas about social stereotyping, intergroup contact, and social identity effects off the drawing board and into the lab and research journals. Rod Kramer did me the honor of agreeing to move to UCLA with me and restarting his graduate degree work in the social psychology program there, and over the years our UCLA "in-group" lab group flourished with the additions of Jorge Manzi from Chile and Minoru Karasawa from Japan, and Sherry Schneider, Jim Liu, Paul Mallery, Jane Asawa, John Shaw, and Joseph (Paul) Weber.

The move to Ohio State University brought the start of 15 years of extraordinary graduate student and postdoctoral scholars. Paul Weber joined me at OSU as a postdoctoral researcher, and our initial lab group attracted three resident doctoral students—Katherine Gannon, Amy Harasty, and Jennifer Welbourne. In subsequent years, our lab included doctoral students Cindy Pickett, Geoffrey Leonardelli, Michael Sargent, Robert Livingston, Clara Cheng, Wil Maddux, Mike Silver, Kevin Miller, Kathleen Pierce, Mark Polifroni, Amanda Scott, Brian Uldall, Leslie Wade, and Nathan Arbuckle, as well as postdoctoral fellows Sonia Roccas, Emanuele Castano, Qiong Li, Masaki Yuki, and Ann Rumble. I wish I could give each of you the individual attention you deserve, but at the least I can thank all of you for enriching my work and my life over 40 fantastic years.

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